Graduate Studies Catalog

Brigham Young University
2019-2020

The heart of the prudent getteth knowledge; and the ear of the wise seeketh knowledge.
Proverbs 18:15



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The University

Brigham Young University offers an exceptional educational opportunity for the well-prepared graduate student who is seeking an environment where learning experiences with dedicated scholars characterize graduate study. Established and sponsored by The Church of Jesus Christ of Latter-day Saints, BYU is the largest privately owned university in the United States. The university president, Kevin J Worthen, is directly responsible to the board of trustees, led by the president of The Church of Jesus Christ of Latter-day Saints and composed of Church authorities. In a time of constantly changing human values and increased challenges for higher education, BYU holds steadfastly to a singular vision that combines reasoned and revealed learning. Along with extensive undergraduate programs, BYU offers master's and doctoral degrees in a variety of disciplines through approximately fifty graduate departments.

Founded in 1875 as Brigham Young Academy, the campus has grown from one building to 500 buildings on more than 600 acres. Its first class of twenty-nine students was taught by the academy's founding scholar, Karl G. Maeser. Now more than 1,500 full-time faculty instruct 33,000 students. From its modest beginnings Brigham Young University has grown to become a distinguished institution of private higher education. At BYU teaching and scholarly research are valued as essential complements of one another. Faculty and students work side by side in collegial scholarship enhanced by mutual commitment to the highest ideals of professional ethics and spiritual values.

Situated at the foot of the beautifully rugged Wasatch Range of the Rocky Mountains and bounded on the west by twenty-three-mile-long Utah Lake, the campus is the focal point of a city of 118,000 and a valley of 540,000. Beyond it to the south and east are spectacular areas of vast sandstone canyons and monoliths, several of which are national parks. Forty-five miles north is Salt Lake City. The faculty at BYU have been schooled at some of the leading universities of the nation as well as of other countries, and many of them have achieved national and international prominence as teachers and scholars.

President's Message



Welcome to Brigham Young University. This catalog contains information about BYU's graduate degree requirements, policies, and course offerings, as well as the University's distinctive mission, which reflects the values of our sponsoring institution, The Church of Jesus Christ of Latter- day Saints.

BYU's graduate study programs are designed to provide a depth of disciplinary knowledge, a breadth of scientific and creative discovery, and the rigor of individual and collective investment where teachers and students work together as partners in significant endeavors. Through graduate study, you become not only a consumer of, but also a contributor to, the world's store of knowledge. Please take advantage of the tremendous resources available to you on campus. Through devoted study, observation, and contemplation, your disciplinary skills will be expanded and enhanced, and your life will be changed forever.

We are delighted that you have chosen to pursue your graduate studies here. May your experience provide not only the opportunity, but also the ability, to make a difference in the world. Best wishes as you begin this new journey of discovery and enlightenment.

Kevin Worthen

Mission and Aims of a BYU Education

BYU Mission Statement

The mission of Brigham Young University - founded, supported, and guided by The Church of Jesus Christ of Latter-day Saints - is to assist individuals in their quest for perfection and eternal life. That assistance should provide a period of intensive learning in a stimulating setting where a commitment to excellence is expected and the full realization of human potential is pursued.

All instruction, programs, and services at BYU, including a wide variety of extracurricular experiences, should make their own contribution toward the balanced development of the total person. Such a broadly prepared individual will not only be capable of meeting personal challenge and change but
will also bring strength to others in the tasks of home and family life, social relationships, civic duty, and service to mankind.

To succeed in this mission the university must provide an environment enlightened by living prophets and sustained by those moral virtues which characterize the life and teachings of the Son of God. In that environment these four major educational goals should prevail:

- All students at BYU should be taught the truths of the gospel of Jesus Christ. Any education is inadequate which does not emphasize that His is the only name given under heaven whereby mankind can be saved. Certainly all relationships within the BYU community should reflect devout love of God and a loving, genuine concern for the welfare of our neighbor.
- Because the gospel encourages the pursuit of all truth, students at BYU should receive a broad university education. The arts, letters, and sciences provide the core of such an education, which will help students think clearly, communicate effectively, understand important ideas in their own cultural tradition as well as that of others, and establish clear standards of intellectual integrity.
- In addition to a strong general education, students should also receive instruction in the special fields of their choice. The university cannot provide programs in all possible areas of professional or vocational work, but in those it does provide the preparation must be excellent. Students who graduate from BYU should be capable of competing with the best in their fields.
- Scholarly research and creative endeavor among both faculty and students, including those in selected graduate programs of real consequence, are essential and will be encouraged.

In meeting these objectives BYU's faculty, staff, students, and administrators should also be anxious to make their service and scholarship available to The Church of Jesus Christ of Latter-day Saints in furthering its work worldwide. In an era of limited enrollments, BYU can continue to expand its
influence both by encouraging programs that are central to the Church's purposes and by making its resources available to the Church when called upon to do so.

We believe the earnest pursuit of this institutional mission can have a strong effect on the course of higher education and will greatly enlarge Brigham Young University's influence in a world we wish to improve.

- *Approved by the BYU Board of Trustees*
November 4, 1981

Aims of a BYU Education

> *Education is the power to think clearly, the power to act well in the world's work, and the power to appreciate life.*
> *- Brigham Young*[1]

The mission of Brigham Young University is "to assist individuals in their quest for perfection and eternal life" (hereafter *Mission Statement*). To this end, BYU seeks to develop students of faith, intellect, and character who have the skills and the desire to continue learning and to serve others throughout their lives. These are the common aims of all education at BYU. Both those who teach in the classroom and those who direct activities outside the classroom are responsible for contributing to this complete educational vision.

The statement that follows reaffirms and expands on the earlier and more general Mission Statement adopted in 1981. As the quotations under each heading suggest, this document also draws on the religious and educational teachings of the university's founding prophet, Brigham Young. Quotations within the text come from the scriptures and from the counsel of modern prophets, whose teachings about BYU lay the foundation of the university's mission.

The following four sections discuss the expected outcomes of the BYU experience. A BYU education should be (1) spiritually strengthening, (2) intellectually enlarging, and (3) character building, leading to (4) lifelong learning and service. Because BYU is a large university with a complex curriculum, the intellectual aims are presented here in somewhat greater detail than the other aims. Yet they are deliberately placed within a larger context. The sequence flows from a conscious intent to envelop BYU's intellectual aims within a more complete, even eternal, perspective that begins with spiritual knowledge and ends with knowledge applied to the practical tasks of living and serving.

Spiritually Strengthening

> *Brother Maeser, I want you to remember that you ought not to teach even the alphabet or the multiplication tables without the Spirit of God.*
>
> *- Brigham Young*[2]

The founding charge of BYU is to teach every subject with the Spirit. It is not intended "that all of the faculty should be categorically teaching religion constantly in their classes, but [that every] teacher in this institution would keep his subject matter bathed in the light and color of the restored gospel."[3]

This ideal arises from the common purpose of all education at BYU — to build testimonies of the restored gospel of Jesus Christ. A shared desire to "seek learning, even by study and also by faith" (D&C 88:118) knits BYU into a unique educational community. The students, faculty, and staff in this community possess a remarkable diversity of gifts, but they all think of themselves as brothers and sisters seeking together to master the academic disciplines while remaining mastered by the higher claims of discipleship to the Savior.

A spiritually strengthening education warms and enlightens students by the bright fire of their teachers' faith while enlarging their minds with knowledge. It also makes students responsible for developing their own testimonies by strenuous effort. Joseph Smith's words apply equally to faculty and students at BYU: "Thy mind, O man! if thou wilt lead a soul unto salvation, must stretch as high as the utmost heavens, and search into and contemplate the darkest abyss, and the broad expanse of eternity — thou must commune with God."[4] Students need not ignore difficult and important questions. Rather, they should frame their questions in prayerful, faithful ways, leading them to answers that equip them to give "a reason of the hope that is in" them (1 Peter 3:15) and to articulate honestly and thoughtfully their commitments to Christ and to his Church.

Intellectually Enlarging

> *Every accomplishment, every polished grace, every useful attainment in mathematics, music, and in all science and art belong to the Saints, and they should avail themselves as expeditiously as possible of the wealth of knowledge the sciences offer to every diligent and persevering scholar.*
>
> *- Brigham Young*[5]

The intellectual range of a BYU education is the result of an ambitious commitment to pursue truth. Members of the BYU community rigorously study academic subjects in the light of divine truth. An eternal perspective shapes not only how students are taught but what they are taught. In preparing for the bachelor's degree, students should enlarge their intellects by developing skills, breadth, and depth: (1) skills in the basic tools of learning, (2) an understanding of the broad areas of human knowledge, and (3) real competence in at least one area of concentration. Further graduate studies build on this foundation.

Graduate

Building on the foundation of a strong bachelor's degree, graduate education at BYU asks for even greater competency. Graduate studies may be either academic or professional and at either the master's or doctoral level. In all cases, BYU graduate programs, like undergraduate programs, should be spiritually strengthening as well as intellectually enlarging.

Graduate programs should help students achieve excellence in the discipline by engaging its primary sources; mastering its literature, techniques, and methodologies; and undertaking advanced systematic study n all at a depth that clearly exceeds the undergraduate level. In addition, graduate programs should prepare students to contribute to their disciplines through their own original insights, designs, applications, expressions, and discoveries. Graduate study should thereby enable a variety of contributions n such as teaching complex knowledge and skills, conducting original research, producing creative work that applies advanced learning in the everyday world, and extending professional service to the discipline and to society.

These intellectual aims of a BYU education are intended to give students understanding perspective, motivation, and interpersonal abilities not just information and academic skills. BYU should furnish students with the practical advantage of an education that integrates academic skills with abstract theories, real world applications, and gospel perspectives. Such an education prepares students who can make a difference in the world, who can draw on their academic preparation to participate more effectively in the arenas of daily life. They are parents, Church leaders, citizens, and compassionate human beings who are able to improve the moral, social, and ecological environment in which they and their families live. They are scientists and engineers who can work effectively in teams and whose work reflects intellectual and moral integrity; historians who write well and whose profound understanding of human nature and of divine influences informs their interpretation of human events; teachers whose love for their students as children of God is enriched by global awareness and foreign language skill; artists whose performances seek to be flawless in both technique and inspiration; business leaders whose economic judgments and management styles see financial reward not as an end but as a means to higher ends. BYU graduates thus draw on an educated intellect to enhance not only what they know but also what they do and, ultimately, what they are.

Character Building

> *A firm, unchangeable course of righteousness through life is what secures to a person true intelligence*
> *- Brigham Young*[6]

Because it seeks to educate students who are renowned for what they are as well as for what they know, Brigham Young University has always cared as much about strong moral character as about great mental capability. Consequently, a BYU education should reinforce such moral virtues as integrity, reverence, modesty, self-control, courage, compassion, and industry. Beyond this, BYU aims not merely to teach students a code of ethics but to help them become partakers of the divine nature. It aspires to develop in its students character traits that flow from the long-term application of gospel teachings to their lives. This process begins with understanding humankind's eternal nature and ends with the blessing of eternal life, when human character reflects in fully flowered form the attributes of godliness. Along the way, the fruits of a well-disciplined life are augmented and fulfilled by the fruits of the spirit of Jesus Christ — such as charity, a Christlike love for others, which God "hath bestowed upon all who are true followers of his Son, Jesus Christ" (Moroni 7:48). Students thus perfect their quest for character development by coming unto Christ through faith, repentance, and righteous living. Then their character begins to resemble his, not just because they think it should but because that is the way they are.

President David O. McKay taught that character is the highest aim of education: above knowledge is wisdom, and above wisdom is character. "True education," he explained, "seeks to make men and women not only good mathematicians, proficient linguists, profound scientists, or brilliant literary lights, but also honest men with virtue, temperance, and brotherly love."[7] Consequently, a BYU education should bring together the intellectual integrity of fine academic discipline with the spiritual integrity of personal righteousness. The result is competence that reflects the highest professional and academic standards--strengthened and ennobled by Christlike attributes.

Thus understood, the development of character is so important that BYU "has no justification for its existence unless it builds character, creates and develops faith, and makes men and women of strength and courage, fortitude, and service--men and women who will become stalwarts in the Kingdom and bear witness of the . . . divinity of the gospel of Jesus Christ. It is not justified on an academic basis only."[8] Rather, it fulfills its promise when "the morality of the graduates of this University provide[s] the music of hope for the inhabitants of this planet."[9]

Every part of the BYU experience should therefore strengthen character — academic integrity in taking a test or writing a research paper; sportsmanship on the playing field; the honest reporting of research findings in a laboratory; careful use of university funds derived from the tithes of Church members; treating all other people with dignity and fairness; and wholehearted acceptance of commitments made to bishops and parents. Character is constructed by small decisions. At this personal level of detail, BYU will realize its hope of teaching "those moral virtues which characterize the life and teachings of the Son of God" (Mission Statement).

Lifelong Learning and Service

> *We might ask, when shall we cease to learn? I will give you my opinion about it; never, never... We shall never cease to learn, unless we apostatize from the religion of Jesus Christ.*
> *- Brigham Young*[10]

> *Our education should be such as to improve our minds and fit us for increased usefulness; to make us of greater service to the human family.*
> *- Brigham Young*[11]

Well developed faith, intellect, and character prepare students for a lifetime of learning and service. By "entering to learn" and continuing to learn as they "go forth to serve," BYU students strengthen not only themselves — they "also bring strength to others in the tasks of home and family life, social relationships, civic duty, and service to mankind" (Mission Statement).

1. **Continual Learning**. BYU should inspire students to keep alive their curiosity and prepare them to continue learning throughout their lives. BYU should produce careful readers, prayerful thinkers, and active participants in solving family, professional, religious, and social problems. They will then be like Abraham of old, who had been "a follower of righteousness, desiring also to be one who possessed great knowledge, and to be a greater follower of righteousness, and to possess a greater knowledge, . . . desiring to receive instructions, and to keep the commandments of God." In this lifelong quest, they, like Abraham, will find "greater happiness and peace and rest" (Abraham 1:2). Thus a BYU diploma is a beginning, not an end, pointing the way to a habit of constant learning. In an era of rapid changes in technology and information, the knowledge and skills learned this year may require renewal the next. Therefore, a BYU degree should educate students in how to learn, teach them that there is much still to learn, and implant in them a love of learning "by study and also by faith" (D&C 88:118).

2. **Service**. Since a decreasing fraction of the Church membership can be admitted to study at BYU, it is ever more important that those who are admitted use their talents to build the kingdom of God on the earth. Hence, BYU should nurture in its students the desire to use their knowledge and skills not ony to enrich their own lives but also to bless their families, their communities, the Church, and the larger society. Students should learn, then demonstrate, that their ultimate allegiance is to higher values, principles, and human commitments rather than to mere self-interest. By doing this, BYU graduates can counter the destructive and often materialistic self-centerdness and worldliness that afflict modern society. A service ethic should permeate every part of BYU's activities - from the admissions process through the curriculum and extracurricular experiences to the moment of graduation. This ethic should also permeate each student's heart, leading him or her to the ultimate wellspring of charity--the love for others that Christ bestows on his followers.

Conclusion

> *Education is a good thing, and blessed is the man who has it, and can use it for the dissemination of the Gospel without being puffed up with pride.*
> *- Brigham Young*[12]

These are the aims of a BYU education. Taken together, they should lead students toward wholeness: "the balanced development of the total person" (Mission Statement). These aims aspire to promote an education that helps students integrate all parts of their university experience into a fundamentally sacred way of life their faith and reasoning, their knowledge and conduct, their public lives and private convictions. Ultimately, complete wholeness comes only through the Atonement of him who said, "I am come that they might have life, and that they might have it more abundantly" (John 10:10). Yet a university education, guided by eternal principles, can greatly "assist individuals in their quest for" that abundant "eternal life" (Mission Statement).

A commitment to this kind of education has inspired the prophets of the past to found Church schools, like BYU, on the principle that "to be learned is good if they hearken unto the counsels of God" (2 Nephi 9:29). These prophets have known the risks of such an enterprise, for "that happiness which is prepared for the saints" shall be hid forever from those "who are puffed up because of their learning, and their wisdom" (2 Nephi 9:42 43). Yet they have also known that education plays a vital role in realizing the promises of the Restoration; that a broad vision of education for self reliance and personal growth is at the very heart of the gospel when the gospel is at the heart of education. To the degree that BYU achieves its aims, the lives of its students will confirm Brigham Young's confidence that education is indeed "a good thing," blessing all those who humbly and faithfully use it to bless others.

Notes

1. Brigham Young, quoted by George H. Brimhall in "The Brigham Young University," Improvement Era, vol. 23, no. 9 (July 1920), p. 831.
2. Brigham Young, in Reinhard Maeser, Karl G. Maeser: A Biography (Provo: Brigham Young University, 1928), p. 79.
3. Spencer W. Kimball, "Education for Eternity," Preschool Address to BYU Faculty and Staff, 12 September 1967, p. 11.
4. Joseph Smith, Teachings of the Prophet Joseph Smith, sel. Joseph Fielding Smith (Salt Lake City: Deseret Book Company, 1972), p. 137.
5. Brigham Young, Journal of Discourses (hereafter JD), vol. 10 (London: Latter day Saints' Book Depot, 1854 86), p. 224.
6. Brigham Young, JD 8:32.
7. David O. McKay, "Why Education?" Improvement Era, vol. 70, no. 9 (September 1967), p. 3.
8. Spencer W. Kimball, "On My Honor," in Speeches of the Year 1978 (Provo: Brigham Young University Press: 1979), p. 137.
9. Spencer W. Kimball, "Second Century Address and Dedication of Carillon Tower and Bells," Brigham Young University, 10 October 1975, p. 12.
10. Brigham Young, JD 3:203.
11. Brigham Young, JD 14:83.
12. Brigham Young, JD 11:214.

Business

Marriott School of Business

Address

Management
730 TNRB , Provo, UT 84602-3113
(801) 422-4121

Departments

- Public Service and Ethics
- Information Systems
- Department of Accountancy
- Master's of Business Administration (MBA)

Dean: Brigitte C. Madrian
Associate Dean: Michael Thompson

Attract, develop, and place men and women of faith, character, and professional ability who will become outstanding leaders capable of dealing with change in a competitive global environment.

Graduate Programs

The Marriott School of Business offers the following graduate degrees:

MAcc Professional Accountancy
MAcc Tax
MBA Business Administration
MISM Information Systems Management
MPA Public Administration

Individual program brochures are available from the Marriott School of Business. Also, refer to the Graduate Studies website.

The Business Administration program draws graduate faculty from each of the five departments within Business Administration

Education

David O. McKay School of Education

Address

Education Contact
301 MCKB , Provo, UT 84602-5095
(801) 422-3694

Departments

- Teacher Education
- Instructional Psychology and Technology
- Communication Disorders
- Counseling Psychology and Special Education
- Educational
- Department of Educational Leadership and Foundations

Dean: Mary Anne Prater
Associate Dean: Tina Dyches

The David O. McKay School of Education includes five departments, all of which prepare professionals to provide education and other developmental services for preschool through adult learners. All departments and programs emphasize a balance of academic learning and on-site classroom, clinical, or administrative experience.

Departments and Programs

1. Communication Disorders: service to children, youth, and adults who need support with aspects of speech, language, or audiology
2. Counseling Psychology and Special Education: service to children, youth, and adults with needs for counseling or disability support
3. Educational Leadership and Foundations: service as leaders and administrators in a variety of educational settings (graduate level only)
4. Instructional Psychology and Technology: service in instructional design, technology-based instruction, and classroom technology integration (graduate level only)
5. Teacher Education: preparation for service as teachers
   - Early Childhood, preschool through third grade
   - Elementary, kindergarten through sixth grade
   - Physical education teaching and coaching, kindergarten through twelfth grade

   Note: All other secondary teaching majors are housed in the colleges and content areas they represent.

Advisement and Support Services

The McKay School's Education Student Services (ESS) includes a variety of services to meet students' needs, which include the following:

1. *Academic Advising*. ESS advisement includes general education, program requirements for McKay School majors, graduation requirements, and progress toward graduation, as well as licensure guidance (350 McKay Building, 801-422-3426). Secondary education majors receive advisement on specific program requirements in the colleges and departments of their content-area majors.
2. *Scholarships*. The ESS coordinates a variety of private scholarships and mentorships. An online application is available at education.byu.edu/ess.
3. *Licensure*. Students who complete the requirements of a teaching program are recommended by ESS for licensure in Utah and states with reciprocity agreements; ESS guides students in the procedures and submits the completed applications and supporting data. Guidance may be provided for obtaining out-of-state licensure.

Distinguishing Features of the McKay School

1. Undergraduates in all McKay School departments have opportunities to participate in mentored research with faculty.
2. Elementary education majors have the option to complete a minor in Teaching English as a Second Language, preparing them for state certification in this area (which will attach to their teaching license).
3. Through the McKay School's ARTS Partnership, elementary education majors with experience in visual arts, music, dance, or drama can attend performances, workshops, and participatory events that involve teaching and integrating the arts into elementary school curriculum. Those who wish to become "arts scholars" collaborate with teachers in elementary classrooms.
4. Alternative student teaching placements are available in urban, minority-intensive areas of Houston, Texas, or Washington, D.C. during the fall and winter semesters; and in southern China during the spring/summer terms.
5. As an alternative to regular student teaching, seniors in some teaching majors may choose a year-long internship within the BYU/Public School Partnership in which they teach full time in their own classrooms at one-half the beginning teacher's salary with full benefits.

The EIME program draws graduate faculty from each of the five departments within the McKay School of Education and from other arts and sciences departments at the university.

Engineering

Ira A. Fulton College of Engineering and Technology

Address

Engineering
270 CB , Provo, UT 84602-1345
(801) 422-4101

Departments

Departments

- Civil and Environmental Engineering
- Chemical Engineering
- Electrical and Computer Engineering
- Mechanical Engineering
- Technology

Dean: Michael Jensen
Associate Dean: Larry Howell

The Ira A. Fulton College of Engineering and Technology is accredited under the Accreditation Board for Engineering and Technology (ABET) for all engineering and technology programs. The men and women who have graduated from our college will be prepared for entry into the finest graduate schools or workplaces. The mission of the Fulton College is to develop men and women of faith, character, and technical ability who will become outstanding leaders throughout the world.

Family, Home, and Social Sciences

College of Family, Home, and Social Sciences

Address

Family, Home, and Social Sciences
990 SWKT
801-422-2083

Departments

- Department of Anthropology
- Family Life
- Neuroscience Center
- Department of Psychology
- Social Work
- Sociology

Dean: Ben Ogles
Associate Dean: Sam Otterstrom

The College of Family, Home, and Social Sciences is composed of departments that study patterns of human behavior from diverse disciplinary approaches. Teaching and scholarship rely on social science methodology to learn about human behavior and human societies — their histories, organization, governments, and economies. As the name implies, the college is particularly concerned with studying the family as the basic unit of society. The many institutes and centers within the college provide opportunities for faculty and students to further research and disseminate scholarship. Students in the college gain a broad education that helps develop an appreciation of the values of modern civilization and prepares them to contribute effectively as citizens. The knowledge and skills gained in the varied disciplines prepare them well for graduate study and professional careers. Many of the departments and programs housed within the college provide opportunities for student learning outside the classroom through internships and faculty-mentored teaching and research experiences.

Degrees Offered

Masters and doctoral degrees are offered in the college. See the individual department and program listings in this catalog for specific degrees offered and the requirements for each.

Scholarships and Awards

Scholarships and awards are available to qualified students. Applications may be obtained from the Financial Aid Office, A-141 ASB. See department and college websites for their scholarships.

Family and Social Service Internships

Karen Christensen, Director
945 SWKT
801-422-2168
http://fssinternships.byu.edu/

Staff members in the Family and Social Service Internships Office assist students in the School of Family Life, Psychology, and Sociology in finding and successfully completing an internship to enhance their undergraduate education. Academic credit for internships is offered through the individual departments.

FHSS Writing Lab

Joyce Adams, Director
1049 JFSB
801-422-4454
https://fhsswriting.byu.edu
fhss-writinglab@byu.edu

Writing advisors in the FHSS Writing Lab offer discipline-specific tutoring in writing for FHSS students. They help students become better writers by focusing on the global aspects of writing, such as thesis construction, organization, transitions, idea development, logical coherence, style, and argument clarity.

Family Studies Center

Sarah Coyne, Director
801-422-6949
https://familycenter.byu.edu/

The Family Studies Center is dedicated to research that identifies characteristics associated with strong marriages and families, the processes by which they develop, and positive individual and relationship outcomes of healthy family relationships. Historically, the Family Studies Center has supported funding for research on family relationships (e.g., the Flourishing Families Project), conferences on cutting-edge family topics (e.g., families and health; work and families), and outreach activities (e.g., "Families Under Fire" conference). Currently, to achieve Center goals, three main initiatives are being supported.

First, the Center is supporting the Couple Relationships and Transition Experiences (CREATE) research study. The CREATE study is planned to tap a national sample of early married couples, and to include unique measures of relationship functioning in context of transitions and stressors across time. Several BYU faculty members are investigators in that study.

Second, the Center is supporting the Project MEDIA (Media Effects on the Development of Infants through Adulthood) research study. This study will examine the long-term impact of exposure to different types of media on various child outcomes and will specifically examine the role of parents and families in mitigating any negative media effects. The study will also examine how families use media in positive ways to strengthen and augment relationships.

Third, the Center is supporting the development of advanced methods to be used in analyzing data that can provide answers to questions about family relationships. As part of this initiative the Center hosts a lunch-time methods workshop twice a month where faculty or guests will present on research methods used with family data. Faculty members and students from across the University that are interested in studying family relationships are invited to attend.

Museum of Peoples and Cultures

Paul Stavast, Director
2201 North Canyon Road in Provo
122 B67
801-422-0020
https://mpc.byu.edu/

Educational Opportunities. Museum staff work with faculty throughout the University to provide in-depth, hands-on learning experiences not only in the museum's exhibitions and laboratories, but also in classrooms across campus. Additionally, classes in museum practices designed to provide students with practical experience are taught by the museum's staff in connection with the Anthropology department (see listings in the Anthropology section of this catalog). The museum also employs students each semester to assist in collections work, education and outreach, exhibition development, among other duties. The museum welcomes volunteers to assist in collection, educational, and promotional work.

Anthropological Collections and Research Opportunities. Museum collections comprise over 7,000 collections (consisting of over 2 million specimens and objects) of prehistoric and ethnographic artifacts from various parts of the world. The majority of holdings are from the American Southwest, Mesoamerica, Polynesia, ancient Peru, and the Great Basin (especially Utah Valley). The museum also cares for an extensive collection of documents and images related to BYU archaeological research. The museum encourages students to inquire about research possibilities using its collections.

General admission is free at the Museum of Peoples and Cultures. Guided tours are available for a nominal fee and can be scheduled by calling the museum.

Fine Arts and Communications

College of Fine Arts and Communications

Address

Fine Arts and Communications
A-501 HFAC
801-422-2819
cfac@byu.edu

Departments

- Department of Art
- Communications
- Music
- Theatre and Media Arts

Dean: Ed Adams
Associate Dean: Jeremy Grimshaw

The College of Fine Arts and Communications houses the Departments of Art, Dance, Design, and Theatre and Media Arts, as well as the School of Communications and the School of Music. It also fosters lifelong learning and enriches the educational environment across campus through a wide array of performances and presentations by students and faculty and through the exhibits and collections of the Museum of Art. The curricula of the College of Fine Arts and Communications encourage students to aspire to the highest scholastic and artistic standards, following within their respective specialties the sacred injunction to seek, inquire, discern, and articulate knowledge. The college celebrates creative and scholarly work as an exploration of divinity.

Students in the college balance a strong liberal arts foundation with specialized, rigorous training in the methods, theories, histories, and practices of their chosen disciplines. Each of the programs within the college seeks to produce graduates whose creative and professional work contributes positively to society while benefiting the organizations for which they work and enriching the audiences they reach. By encouraging exceptional performance, presentation, and communication, graduates emerge as scholars and professionals within their disciplines and informed, creative voices within their communities.

College Advisement Center

The College of Fine Arts and Communications Advisement Center recognizes the opportunity and responsibility to be actively involved in our students' educational journey. The advisement center is committed to not only establish an important, service-oriented connection with each student in a caring, friendly environment, but to also provide accurate and timely information to better prepare them for greater academic success.

Professional academic advisors are available to provide information regarding university policies and procedures, dates and deadlines, registration, faculty advisor referrals, major/minor application preparation, major/minor planning and progression, graduation qualification, as well as many other academic concerns.

Interdisciplinary Degrees

Animation is an interdisciplinary degree offered by the College of Fine Arts and Communications through the cooperative involvement of the Department of Theatre and Media Arts, the Department of Design, and the Department of Computer Science.

Music Dance Theatre is an interdisciplinary degree offered by the College of Fine Arts and Communications through the cooperative involvement of the School of Music, the Department of Theatre and Media Arts, and the Department of Dance.

Enrollment in a Major Program

Enrollment in most degree programs in the College of Fine Arts and Communications is limited by the availability of resources such as facilities, equipment, and faculty. Students are asked to carefully study the requirements of the major program they desire to enter to determine if the program really fits his or her personal goals and educational objectives.

The application process for each major has been structured to be as fair and impartial as possible. Enrollment limitations require those evaluating applications to make difficult decisions. Those who are not admitted into his or her desired program are encouraged to move quickly and decisively toward an alternative major program.

Applications for degree programs in the college are available online through each department's website. Prior to applying, students must complete all of the prerequisite courses and/or specific requirements stipulated in the application process. For further information, please contact the appropriate department or school directly. For contact information go to http://cfac.byu.edu.

Scholarships and Awards

A-41 ASB
801-422-4104

Performance awards are offered by each of the academic units within the college. Applications and information about auditions for performance awards can be obtained by contacting the appropriate department or school.

Applications for academic scholarships can be obtained online here or at the Scholarship Office. For information about graduate scholarships, fellowships, and grants-in-aid, see the Graduate Studies website.

Humanities

College of Humanities

Address

Humanities
4002 JFSB
801-422-2775
humanities@byu.edu

Departments

- Linguistics
- Center for Language Studies
- Comparative Arts and Letters
- Spanish and Portuguese
- English

Dean: Scott Miller
Associate Dean: Leslee Thorne-Murphy

The College of Humanities houses programs that study literature and language as well as philosophy, critical reading, and writing. Those programs share a concern with the processes and products of human expression. In doing so, they focus on a quest for fluency in what has been called "the human conversation"—the ongoing inquiry into what it means to be human.

Study in the humanities disciplines develops facility in languages and cultures as well as higher order cognitive abilities needed for interpretation, analytical thinking and reflection, criticism, and writing. Students can apply what they are learning prior to graduation and enrich their capacities for satisfying careers and productive lives as educated citizens after.

Center for Language Studies

Ray T. Clifford, Director
Agnes Welch, Assistant Director
3086 JFSB
801-422-1201
http://cls.byu.edu

The Center for Language Studies works with other College departments to help students from all of the University's academic disciplines acquire the advanced language and cultural skills they need for personal enrichment and for global careers. Particular emphasis is placed on:

- Teaching advanced language classes in low-enrollment languages spoken by returned missionaries.
- Testing language proficiency.
- Conducting language acquisition research.

The Humanities Center

Matthew Wickman, Senior Fellow and Director
4103 JFSB
801-422-1664
http://humanitiescenter.byu.edu

The Humanities Center is an institute of intensive learning and outreach that promotes the exchange of ideas within the humanities and across the arts and sciences. It aims to foster excellent research and teaching in the humanities, encourage discussion and collaboration across departments, colleges, and universities on matters of public as well as academic concern and enhance BYU's global reputation for scholarship, teaching, and public service.

Law

J. Reuben Clark Law School

BYU > College

Address

Law
341 JRCB , Provo, UT 84602-8000
(801) 422-4274

Departments

- J. Reuben Clark Law School

Dean: D. Gordon Smith

Assistant Dean of Admission: Stacie Stewart

The J. Reuben Clark Law School offers a six-semester course of graduate professional study leading to the juris doctor (JD) degree. Information about legal education, admissions standards, and related matters can be obtained from the Law School Admissions Office or at the contact page on the BYU Law School website.

To be admitted as a candidate for the Juris Doctorate program, an applicant must be a college graduate who has excelled academically and has scored in the upper range of the nationally administered Law School Admission Test. In addition, JD applicants must meet the general university admission requirements, including the personal standards required of all students.

Apply for admission online at www.lsac.org by June 30 for preceding the fall of expected enrollment in the Law School. Enrollment takes place only in the fall of each year.

For more information regarding prelegal education, consult the Preprofessional Advisement Center (Law). For information regarding the BYU Law School, including opportunities for undergraduate students to observe classes, tour the Law School, or meet with an admissions officer, email or call.

Life Sciences

College of Life Sciences

BYU > College

Address

Life Sciences
5000 LSB
801-422-3963

Departments

- Department of Plant and Wildlife Sciences
- Department of Physiology and Developmental Biology
- Department of Biology
- Exercise Sciences
- Public Health
- Microbiology and Molecular Biology
- Department of Nutrition

Dean: James Porter

Associate Dean: Rosemary Thackeray

Courses offered in the life sciences give students a general understanding of the fundamental principles of life that extend from the tiniest microbes to plants, animals, and human beings. Students also obtain the knowledge, skills, and motivation necessary to maintain a healthy lifestyle. Specialized courses emphasizing teaching and research in various life science disciplines are also offered. Disciplines range from basic science to applied science.

M. L. Bean Life Science Museum

Larry St. Clair, Director
Leigh Johnson, Associate Director for Research and Collections
Marta Adair, Assistant Director for Education
2103 MLBM

Robert Johnson, Collections Manager, Herbarium
Byron Adams, Curator of Meiofauna
John Bell, Curator of Mollusks and Crustaceans
Shawn Clark, Collections Manager, Arthropods
Jerald Johnson, Assistant Curator of Fish
Leigh Johnson, Curator, Herbarium
Randy Larsen, Assistant Curator of Birds
Riley Nelson, Assistant Curator of Insects
Duke Rogers, Curator of Mammals
Dennis Shiozawa, Curator of Fish
Jack Sites, Curator of Reptiles and Amphibians
Larry St. Clair, Curator of Nonvascular Cryptogams
Michael Whiting, Curator of Insects

The Bean Life Science Museum is fully accredited with the American Alliance of Museums. A major addition and remodel of the museum was completed in 2014. Its vast teaching and research collections include more than two million arthropods, fish, amphibians, reptiles, mammals, birds, meiofauna and mollusks, and more than 700,000 plants, fungi, algae, and bryophytes. Specimens for these collections, which represent creative work by university faculty members and students, have been gathered from around the world, making the museum a major repository of scientific-quality, biological collections in the western United States.

The museum and its collections are utilized by university classes in biology, plant and wildlife sciences, education, art, geography, and other disciplines. The museum also maintains and manages the Lytle Ranch Preserve. Located in the northernmost extension of the Mojave Desert southwest of St. George, Utah, this 600-acre desert "classroom" is situated in a part of Utah that is unique not only for its plant and animal communities, but also for its setting at the crossroads of three major bioregions.

Public programs at the museum include temporary and permanent exhibits of natural communities that illustrate complex relationships between plants, animals, and their physical environment. Educational programs serve more than 150,000 annual visitors and provide classes and programs for public and private schools and many other organizations. Museum hours are Monday through Friday from 10:00 a.m. to 9:00 p.m. and Saturday from 10:00 a.m. to 5:00 p.m. The museum is closed on Sunday. Admission is free.

The Western North American Naturalist, a nationally recognized peer-reviewed natural history journal, is administered by the museum. Other museum publications include professional and popular works such as *A Utah Flora, Bark and Ambrosia Beetles of South America, Snakes of Utah*, and *Common Rocky Mountain Lichens*.

Nursing

College of Nursing

Address

Nursing
500 SWKT , Provo, UT 84602-5532
(801) 422-4144

Departments

- Department of Nursing

Dean: Patty Ravert
Associate Dean: Jane Lassetter

The College of Nursing at Brigham Young University, established in 1952, is accredited by the Utah State Board of Nursing and the Commission on Collegiate Nursing Education. The mission of the College of Nursing is to develop professional nurses who promote health, care for the suffering, engage in the scholarship of the discipline, invite the Spirit into health and healing, and lead with faith and integrity.

Graduates of the MS program are prepared for a variety of advanced practice and leadership roles in the health care delivery system.

The college faculty are committed to creating a stimulating learning environment based on Christian principles. They maintain a broad range of research and clinical interests.

Student resources include a fully equipped learning resource center with audiovisual and computer learning aids, a research center, and a state-of-the-art clinical simulation laboratory. Clinical practice opportunities exist in a variety of urban and rural hospital, school, home, and community settings along the Wasatch Front. Students may also gain extended experiences with specialized national and international health programs.

Scholarships and Awards

Scholarships are available for graduate students. Information about additional sources of funding for study are available through the graduate program manager. Research assistantships and teaching assistantships are also available.

Physical and Mathematical Sciences

College of Physical and Mathematical Sciences

Address

Physical and Mathematical Sciences
N-181 ESC
801-422-2674
cpms@byu.edu

Departments

- Chemistry and Biochemistry
- Statistics
- Physics and Astronomy
- Department of Mathematics Education
- Computer Science
- Geological Sciences
- Mathematics

Interim Dean: Gus Hart
Associate Dean:

The College of Physical and Mathematical Sciences consists of seven departments: Chemistry and Biochemistry, Computer Science, Geological Sciences, Mathematics, Mathematics Education, Physics and Astronomy, and Statistics.

The master of science degree is offered in biochemistry, chemistry, computer science, geology, mathematics, physics, and statistics. The master of arts degree is available in mathematics education. The doctor of philosophy degree is offered in biochemistry, chemistry, computer science, mathematics, physics, and physics/astronomy.

See specific departmental sections of this catalog for baccalaureate degree requirements. Graduate programs are detailed in the 2016-2017 BYU Graduate Catalog.

Religious Education

Religious Education

Address

Religious Education
370 JSB , Provo, UT 84602-5693
(801) 422-2735

Departments

Religious Education

Dean: Daniel K Judd

Associate Dean: J.B. Haws

The mission of Religious Education at Brigham Young University is to assist individuals in their efforts to come unto Christ by teaching the scriptures, doctrine, and history of the restored gospel of Jesus Christ through classroom instruction, gospel scholarship, and outreach to the larger community.

Purposes

Religious Education oversees the teaching of and research into scripture, doctrine, LDS and Christian church history, and world religions. We strive to create a learning environment and provide resources that are "spiritually strengthening, intellectually enlarging, and character building" and an educational experience that results in "lifelong learning and service" (The Aims of a BYU Education).

Religious Education seeks to spread the light of restored truth to Latter-day Saints and to those not of the LDS faith in three ways:

1. Instruction. We seek in Religious Education to find new ways and more effective ways to communicate timeless truths and to provide "a stimulating setting where a commitment to excellence is expected and the full realization of human potential is pursued" (BYU Mission Statement). In general, we search for ways to enhance the educational experience and to build a faith in and a commitment to the restored gospel that is as stimulating and satisfying to the mind as it is soothing and settling to the heart.
2. Scholarship. The search for new truths and the quest to better understand well-known truths are central to the work of Religious Education. While the ultimate interpretation of doctrinal matters rests with apostles and prophets, we seek to discover historical backgrounds, provide cultural and linguistic details, and explore new avenues of understanding into our faith, history, and way of life.
3. Outreach. An important dimension of the work of Religious Education is outreach, the effort to teach, share, and discuss Mormonism in the larger non-LDS community of scholars and to foster understanding between men and women of all faiths.

Degrees Offered

Religious Education offers two programs leading to a master's degree: **Religious Education Master of Arts** designed for individuals recommended by Seminaries and Institutes and **Chaplaincy Master of Arts** for military chaplaincy candidates.

For further information on these programs, please go to religion.byu.edu. No other degree programs are offered in this area.

Scholarships and Awards

Graduate-level scholarships and awards are available to qualified students. Applications may be obtained from the Office of the Dean of Religious Education.

Doctrinal Foundation and Religious Electives

Religion courses are an integral part of the university curriculum that conforms to university standards and expectations. While students are enrolled at BYU, they are required to take religion courses from BYU. See Doctrinal Foundation and Religious Electives information on the University Core Explained page in this catalog.

Religious Studies Center

Scott C. Esplin, Director
167 HGB
801-422-6975
http://rsc.byu.edu/

The Religious Studies Center (RSC) is the research and publication arm of Religious Education. It continues to pursue its original charter to encourage and sponsor serious, faithful, gospel-related scholarship and the ensuing publication of that scholarship. It fulfills the charge to help meet the university's commitment to religious studies and Religious Education's aim to teach and preserve the doctrine of the gospel of Jesus Christ. It also serves the greater Church through the publication of the works of Religious Education faculty and other scholars who have written important, timely, scholarly work of a faith-promoting nature.

To encourage and promote religiously oriented scholarship, the RSC awards grants and provides other financial assistance. It proactively reaches out to faculty to encourage research in specific areas and supports them in the publication of their findings. To accomplish this the RSC sponsors two faculty mentors, known as area directors, who oversee and fund research in Church history and ancient scripture.

Department of Accountancy

Address

Accountancy Courses
515 TNRB, Provo, UT 84602-3068
(801) 422-3951
soa@byu.edu

Programs

- Accountancy - Professional [232667]
- Accountancy - Tax [232666]

The School of Accountancy (SOA) administers one graduate program through the Marriott School: the Master of Accountancy-MAcc.

The Master of Accountancy program offers a general background in accounting, with an emphasis on business-related subjects and an in-depth study of one or more areas of accounting. The MAcc degree is awarded on completion of a professional program, which can begin as early as the junior year of the undergraduate program, and culminates in the Marriott School after the fifth year. Students entering the SOA program with a baccalaureate degree in accounting can complete the program in less than two years.

The objective of the program is to develop graduates who exhibit professionalism and are qualified with specialized knowledge in one or more accounting areas.

The School of Accountancy seeks to educate individuals who are:

1. Imbued with a strong sense of professional commitment
2. Qualified with specialized knowledge in the areas of accounting or tax
3. Committed to continued professionalism-beyond formal education
4. Capable of becoming leaders who exhibit high standards of ethical conduct within their chosen profession.

Two emphases are offered within the MAcc program: Professional Accountancy and Tax. The Professional Accountancy emphasis is designed for students who wish to gain a broad base of graduate accounting training. Students typically seek accounting positions in auditing, management, not-for-profit, or PhD programs. Tax emphasis graduates usually begin careers in the tax area of public accounting firms.

The School of Accountancy admits approximately 160 students per year into its graduate program.

Director: Douglas F. Prawitt
Associate Director: William Tayler

Resources & Opportunity

The N. Eldon Tanner Building. The Tanner Building, which houses the Marriott School, is one of the finest facilities of its kind. The original building with a dramatic seven-story atrium was recently updated with a new four-story addition. The addition boasts thirty-nine team study rooms, six large case rooms, the Blue Line Deli, and adds 76,000 square feet to the existing building.

The Marriott School of Management. The Marriott School is recognized as one of the outstanding management schools in the nation. Faculty are actively engaged in research and publication, and they fill leadership positions in a number of national professional organizations. The school has developed innovative educational programs that include internships, executive visitation programs, special student consulting and research projects, and other activities designed to bring management education and training closer to management practice. This is accomplished, in part, through the Marriott School's National Advisory Council.

National Advisory Council. Consisting of more than 160 prominent business and government executives, the National Advisory Council lends major support to the Marriott School. Students benefit by interacting with council members in special campus lectures and seminars and by visiting or working with these executives in their respective organizations. Furthermore, the council assists students with placement opportunities, helps develop funding sources for scholarships, and provides professional development for faculty members.

The Executives on Campus Program. This program gives students an opportunity to interact with distinguished business and government leaders who come to campus. These executives visit classes and meet with student organizations as well as participate in the Executive Lecture Series and Entrepreneurship Lecture Series.

Financial Assistance

The School of Accountancy utilizes the Marriott School's financial aid provisions. Qualified students can receive aid from the following: the Marriott School Scholarship Fund, private scholarship donations, assistantship awards, and loan assistance.

Scholarships. The Marriott School of Management offers scholarships to Marriott School students through the college, departments and programs. One application online at marriottschool.byu.edu/aid allows students to apply for all scholarships the Marriott School offers.

Assistantships. Research and teaching assistantships are available for qualified second-year students.

Loans. Several loans are available for Marriott School students:

> Marriott School Loans: available to full-time Marriott School day students. Marriott School loans are handled on an individual basis, dependent on financial need and standing within the participating program.
> BYU Short-Term Loans: available for up to the cost of tuition only.
> Federal Stafford Loans: subsidized by the U.S. government. Not available for international students. More information on and applications for these loans are available from the BYU Financial Aid Office, A-41 ASB, (801) 422-4104, e-mail: financial_aid@byu.edu.

Accountancy - Professional (MAcc) [232667]

Application Deadline: March 1
Minimum Program Hours: 60

Required credit hours: 36

Professional Accountancy: ACC 515, 522, 525, 530, 531, 540, 541. Finance elective: MBA 621-629 (choose one); MAcc Electives: 6 hours from the Professional Accounting elective course list; Marriott School electives: 6 hours from the elective course list.

Required Tests

GMAT (average range 650 - 680)

Additional Requirements

1. Premanagement and preaccounting courses
2. 3.0 overall GPA

Accountancy - Tax (MAcc) [232666]

BYU > Marriott School of Business > Department of Accountancy > Program

Required credit hours: 36

Tax: ACC 503, 523, 525, 560, 561, 562, 563, 566. MAcc elective: 3 hours from the Tax elective course list; Marriott School electives: 9 hours from the elective course list.

Required Tests

GMAT (average range 650 - 680)

Additional Requirements

1. Premanagement and preaccounting courses
2. 3.0 overall GPA

Academic Archival Research Design [ACC-517]

BYU > Marriott School of Business > Department of Accountancy > Course

Accounting research using archival methodologies. Focus on reading, interpreting, critiquing, and designing archival research. Designed for those planning to enter a PhD program.

Hours: 1.5 Credit, 1.5 Lecture, 0.0 Lab
Prerequisites: SOA director's consent.

Academic Experimental Research Design [ACC-518]

BYU > Marriott School of Business > Department of Accountancy > Course

In-depth study of accounting research using experimental methodologies. Focus on reading, interpreting, critiquing, and designing experimental research. Designed for those planning to enter a PhD program.

Hours: 1.5 Credit, 1.5 Lecture, 0.0 Lab
Prerequisites: SOA director's consent.

Academic Internship: Accounting [ACC-599R]

BYU > Marriott School of Business > Department of Accountancy > Course

On-the-job experience and training in industry, government, or public accounting firms.

Hours: 0.5-3.0 Credit, 0.0 Lecture, 9.0 Lab
Prerequisites: Internship coordinator's consent.

Accounting Data Analytics [ACC-525]

BYU > Marriott School of Business > Department of Accountancy > Course

Apply an analytic mindset to problems. Learn data analytic tools and techniques including extracting, transforming, and loading data; querying databases; visualizing data; and applying statistical concepts in accounting settings.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Admission to MAcc.

Accounting Research Seminar [ACC-515]

BYU > Marriott School of Business > Department of Accountancy > Course

Professional standards and professional literature of accounting and auditing; related academic research. Research tools, information technologies, and critical analysis emphasized.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Admission to MAcc.

Advanced Financial Accounting [ACC-503]

BYU > Marriott School of Business > Department of Accountancy > Course

Advanced financial accounting topics including pensions, earnings per share, accounting changes, and deferred income taxes.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Marriott School Graduate Core.

Advanced Financial Statement Auditing [ACC-530]

BYU > Marriott School of Business > Department of Accountancy > Course

Accounting methodology, professional auditing standards, and current issues.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Admission to MAcc; Acc 515 or equivalent.

Advanced Management Accounting [ACC-531]

BYU > Marriott School of Business > Department of Accountancy > Course

Advanced concepts, including the role of accounting in strategic and operational decision-making.

Hours: 1.5 Credit, 1.5 Lecture, 0.0 Lab
Prerequisites: Marriott School Graduate Core; Acc 515 or equivalent.

Advanced Professional Financial Accounting [ACC-540]

BYU > Marriott School of Business > Department of Accountancy > Course

Advanced financial accounting topics including pensions, earnings per share, accounting changes, and deferred income taxes.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Marriott School Graduate Core; Acc 515 or equivalent.

Advanced Taxation [ACC-522]

BYU > Marriott School of Business > Department of Accountancy > Course

Tax laws as they apply to selected tax entities, with an introduction to tax research methodology.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Marriott School Graduate Core.

Corporate Taxation 1 [ACC-561]

BYU > Marriott School of Business > Department of Accountancy > Course

Federal income taxation of corporations and shareholders.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Corporate Taxation 2 [ACC-562]

BYU > Marriott School of Business > Department of Accountancy > Course

Continuation of Corporate Taxation 1. Includes consolidated returns.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Current Tax Policy [ACC-565R]

BYU > Marriott School of Business > Department of Accountancy > Course

Intensive study of special and current tax topics and policies.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Data Communications and Security [ACC-555]

BYU > Marriott School of Business > Department of Accountancy > Course

Principles of data communication and security, local- and wide-area networks, hardware, software, infrastructure, standards, policies, baseline security, web security, cryptography, operations, and security management.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Admission to MAcc.

Database Analysis and Design [ACC-556]

BYU > Marriott School of Business > Department of Accountancy > Course

Concepts and techniques of database system development. Focal areas include: structures, integrity, retrieval, manipulation, validation, and analysis. SQL used as basis for data interrogation.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Admission to a Marriott School graduate program.

Fair Value and Other Measurements in Accounting [ACC-542]

BYU > Marriott School of Business > Department of Accountancy > Course

Case-based course that examines theoretical and practical issues surrounding fair value and other measurement issues. Focuses on techniques used in practice for measuring financial instruments, acquisitions, revenue recognition, and asset impairments, among others.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Financial Statement Analysis [ACC-541]

BYU > Marriott School of Business > Department of Accountancy > Course

Analysis of financial statements and the accompanying footnotes. How various accounting methods might affect interpretation and use of financial information.

Hours: 1.5 Credit, 1.5 Lecture, 0.0 Lab

Fraud Prevention and Detection [ACC-550]

BYU > Marriott School of Business > Department of Accountancy > Course

Fraud prevention, detection, investigation, issues, and methodology. Examination of past frauds with hands-on cases and computer exercises to identify increased fraud risk, interrogate data, and design prevention and detection controls.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Healthcare Industry Dynamics [ACC-588]

BYU > Marriott School of Business > Department of Accountancy > Course

A broad study of the many interconnected components of the healthcare industry, including medical technology, pharmaceuticals, hospital administration, healthcare policy, insurance, public health, etc. Introductory applications of various functional skills to healthcare (e.g., accounting, data analytics, ethics, finance, human resources, information systems, marketing, operations, organizational behavior, strategy, supply chain management, and other specializations).

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

International Accounting and Multinational Enterprises [ACC-545]

BYU > Marriott School of Business > Department of Accountancy > Course

Accounting from an international perspective: flow of information in multiple currencies, complying with reporting requirements, setting budgets and monitoring performance, and controlling corporate assets through reports and audits.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Introduction to Academic Research [ACC-516]

BYU > Marriott School of Business > Department of Accountancy > Course

Fundamentals of academic research, including the scientific method, the philosophy of science, and the areas and methodologies of academic research.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Admission to the MAcc predoctoral track.

Management Consulting and Projects [ACC-557]

BYU > Marriott School of Business > Department of Accountancy > Course

Projects-oriented course where students get hands-on experience performing consulting jobs for businesses in Utah. Class includes both in-class instruction and business experience.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Admission to MAcc.

Readings and Conference [ACC-591R]

BYU > Marriott School of Business > Department of Accountancy > Course

In-depth study one-on-one with chosen professor on topic of mutual interest not currently covered in existing courses.

Hours: 0.5-3.0 Credit, Arr Lecture, 0.0 Lab
Prerequisites: SOA director's consent.

Special Problems in Federal Taxation [ACC-560]

BYU > Marriott School of Business > Department of Accountancy > Course

Special property transactions, accounting periods and methods, tax payments and credit, tax concepts, and reporting tax liability.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Tax Accounting Methods and Accounting for Income Taxes [ACC-566]

BYU > Marriott School of Business > Department of Accountancy > Course

Accounting periods and methods, corporate income taxation, and accounting for income taxes under ASC 740.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Tax Research Methodology [ACC-523]

BYU > Marriott School of Business > Department of Accountancy > Course

In-depth treatment of research and procedures emphasizing communication and presentation of findings.

Hours: 3.0 Credit, 3.0 Lecture, 6.0 Lab
Prerequisites: Admission to MAcc.

Taxation of Estates, Gifts, and Fiduciaries [ACC-564]

BYU > Marriott School of Business > Department of Accountancy > Course

Federal taxation of property transferred by death and gift; federal taxation of income of trusts and estates.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Taxation of Foreign Income [ACC-568]

BYU > Marriott School of Business > Department of Accountancy > Course

Federal taxation of foreign transactions.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Acc 561 or concurrent enrollment.

Taxation of Partnerships [ACC-563]

BYU > Marriott School of Business > Department of Accountancy > Course

Federal income taxation of general and limited partnerships and partners.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Barrick, John A

BYU > Marriott School of Business > Department of Accountancy > Faculty

Associate Professor
Accountancy
PhD, University of Nebraska, 1998
Research Interest: Tax

Burton, Fielding Greg

BYU > Marriott School of Business > Department of Accountancy > Faculty

Professor
Accountancy
PhD, University of South Carolina, 1994
Research Interest: Information Systems; Audit

Cottrell, David Mark

BYU > Marriott School of Business > Department of Accountancy > Faculty

Professor
Accountancy
PhD, The Ohio State University, 1992
Research Interest: Audit; Financial

Drake, Michael Stephen

Associate Professor
Accountancy
PhD, Texas A&M University, 2009
Research Interest: Financial

Glover, Steven Morris

Professor
Accountancy
PhD, University of Washington, 1994
Research Interest: Audit; Financial

Heninger, William Guy

Associate Professor
Accountancy
PhD, University of Georgia, 1997
Research Interest: Information Systems; Audit; Financial

Prawitt, Douglas Frank

Professor
Accountancy
PhD, University of Arizona, 1993
Research Interest: Audit

Smith, Steven D

Associate Professor
Accountancy
PhD, Cornell University, 2005
Research Interest: Managerial

Spilker, Brian Clark

Professor
Accountancy
PhD, University of Texas, Austin, 1993
Research Interest: Tax

Stewart, Bryan W

Assistant Professor
Accountancy
PhD, University of South Carolina, 2013
Research Interest: Tax

Stice, Earl Kay

Professor
Accountancy
PhD, Cornell University, 1988
Research Interest: Financial

Stice, James David

Professor
Accountancy
PhD, University of Washington, 1989
Research Interest: Financial

Summers, Scott Lee

Professor
Accountancy
PhD, Texas A&M University, 1995
Research Interest: Information Systems

Swain, Monte R

Professor
Accountancy
PhD, Michigan State University, 1991
Research Interest: Managerial

Tayler, William

Professor
Accountancy
PhD, Cornell University, 2007
Research Interest: Managerial

Wilks, Thomas J

Professor
Accountancy
PhD, Cornell University, 1996
Research Interest: Financial

Worsham, Ronald Gene

Associate Professor
Accountancy
PhD, University of Florida, 1994
Research Interest: Tax

Zimbelman, Mark Foster

Professor
Accountancy
PhD, University of Arizona, 1996
Research Interest: Audit; Financial

Department of Anthropology

Address

Anthropology Contact
800 KMBL, Provo, UT 84602-5522
(801) 422-3058
anthropology@byu.edu

Programs

Anthropology [732065]
Museum Practices - Certificate [732067]

The Anthropology program emphasizes archaeology. Additionally, the department offers a Museum Studies Certificate that many students complete in combination with their M.A. program in archaeology.

The MA program offers students diverse research opportunities in the Great Basin and American Southwest regions of North America, Mesoamerica, and the Near East. Annual archaeology field schools focus on providing training in both survey and excavation, with an emphasis on detailed documentation, resolving field problems through hands-on mentored learning, data-analysis, and reporting findings. The Museum Studies Certificate allows students hands-on professional training in all aspects of museum collections management, exhibition development, and public outreach. Museum internship opportunities are often available, both on and off campus, for students in the Museum Certificate program.

Rather than emphasizing specialized or topical interests, the programs equip each graduate students with the skills necessary for a future in professional archaeology and/or museum studies. After completing the MA program, students are prepared for further academic work in an anthropology or archaeology PhD program, for a career in public archaeology or for employment in a museum.

Up to six students are admitted to the graduate program each year. Most students take three years to complete the requirements. The total number of graduate students in the program varies from about 12 to 15 participants.

Chair: James R. Allison Graduate Coordinator: James R. Allison

Resources & Opportunity

Museum of Peoples and Cultures. The Museum of Peoples and Cultures offers unique research opportunities for Anthropology students and faculty. Located north of campus on Canyon Road, the museum holdings include important archaeological and ethnographic collections from cultures of the Great Basin, the American Southwest, Mesoamerica, the Near East, and other parts of the world. These collections provide material for exhibits, MA theses, museum certificate projects, and professional publications. Publications produced by the Museum of Peoples and Cultures include a Technical Series, Occasional Papers, and a Popular Series. The Occasional Papers and Popular Series publications are marketed by the University of Utah Press.

Office of Public Archaeology. The Office of Public Archaeology (OPA) is one of the most active archaeological contracting organizations in the intermountain area. Since its inception in 1980, OPA has carried out archaeological survey and excavation projects throughout Utah, OPA often provides archaeology MA students with experience in field work, laboratory analysis, and report writing.

The New World Archaeological Foundation. The New World Archaeological Foundation is a research institution focused on Formative Mesoamerican cultures, especially in Chiapas, Mexico. Established in 1952, the NWAF maintains a staff and research facilities in San Cristobal de las Casas, Chiapas. The NWAF publishes a monograph series (papers) to disseminate research findings. Graduate student opportunities through the foundation include laboratory research and limited field work opportunities in Mexico and Guatemala.

Charles Redd Center for Western Studies. Established in 1972 under an endowment from Charles Redd, a prominent Utah stockman and philanthropist, the center is charged with promoting the study of all aspects of the American West. The center publishes a monograph series, assists faculty and student research through grants and fellowships, and sponsors lectureships each year.

Financial Assistance

The Department of Anthropology offers tuition assistance to all incoming graduate students. Additional support comes through assistantships, grants, and employment offered by the department and the Museum of Peoples and Cultures, but these funds are limited. The goal is to provide some support for as many students as possible rather than generously support only a few. The Office of Public Archaeology (OPA) also regularly provides employment and valuable professional experience to students prepared to participate in contract archaeology projects.

Anthropology (MA) [732065]

BYU > College of Family, Home, and Social Sciences > Department of Anthropology > Program

Application Deadline: February 1

Total Credit Hours Required (30): A minimum of 24 hours of course work plus 6 thesis hours (ANTHR 699R); A minimum of 20 hours (of the 24 noted above) must be taken under the direct instruction of professional anthropologists at BYU or in another acceptable department at the university. Thesis, readings, internship, and individual work do not count toward these 20 hours. Required and additional courses are noted below.

Required Core Courses:

ANTHR 500 (History of Antrhopology)
ANTHR 501 (Current Archeological Method & Theory) OR ANTHR 503 (Contemporary Anthro, Theory)
ANTHR 502, (Quantitative Methods for Anthropology) OR ANTHR 543 (Ethnograhic Data Analysis)
ANTHR 512 (Heritage Resource Management) OR ANTHR 590R (Special Topics in Psychological Anthro)

Additional Courses: 12 hours of electives from ANTHR 530-695R, with a maximum of six hours from 695R.

Examinations: (A) Oral presentation of thesis proposal; (B) Oral comprehensive examination in conjunction with the thesis proposal; (C) Oral defense of written thesis.

Final Written Thesis: 6 hours of ANTHR 699R and successful completion of a masters level thesis.

Email: anthropology@byu.edu

Required Tests

GRE, TOEFL, or IELTS

Additional Requirements

Letter of intent specifying particular areas of interest
Undergraduate degree in anthropology or related field
Resume required

Museum Practices - Certificate (CERT) [732067]

BYU > College of Family, Home, and Social Sciences > Department of Anthropology > Program

Application Deadline: April 1

Optional Additional Museum Practices Certificate

Students interested in the Museum Certificate Program apply online but must be concurrently accepted into any Masters program at BYU in order to be accepted to the certificate program. The Museum Certificate Program provides training in collections management, exhibit preparation, museum education, and legal issues elated to maintaining museum collections. These skills provide career opportunities in museum work suitable for students who do not plan to continue in archaeology at the Ph.D. level, and/or are interested in archaeology as an academic discipline but do not wish to pursue a career that requires field work.

Credit Hours (24): 18 hours plus 6 hours of internship in an approved collections repository (Anthr 599R).

Required Core Courses: Anthr 522, 524, 525, 526, 596, 599R. Anthr 524, 526, and 596 must be taken sequentially in the same academic year.
Additional Courses: one approved elective (3 hours) selected from the following: Anthr 511, 512, 590; ArtHC 590R.
Examinations: Successfully pass a benchmark review (coordinated with the cognate master's departmental review) no later than completion of the Anthr 524 course. Completion of the master's degree in a cognate discipline such as anthropology, history, art education, or humanities.

Additional Requirements:

In order to apply for this program, you must be currently enrolled in a BYU Master's program.

1. Letter of intent describing career goals and how the certificate is expected to aid the student in achieving these goals.
2. Three letters of recommendation.

Academic Internship: Federal Agency on Museum/Collections Repository [ANTHR-599R]

BYU > College of Family, Home, and Social Sciences > Department of Anthropology > Course

Earning credit while employed in federal agency archaeology (BLM, U.S. Forest Service, etc.); or 320 hours in collections-holding institution (sixteen weeks half-time; eight weeks full-time).

Hours: 1.0-6.0 Credit, 0.0 Lecture, 0.0 Lab
Prerequisites: Prior approval; completion of all course work for certificate in museum practices (may be taken concurrently with Anthr 596).

Contemporary Anthropological Theory [ANTHR-503]

BYU > College of Family, Home, and Social Sciences > Department of Anthropology > Course

Anthropological theory from the late 20th century to the present. Current theoretical concerns of anthropology. Theoretical frameworks and how these theories can inform master's thesis research.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Current Archaeological Method and Theory [ANTHR-501]

BYU > College of Family, Home, and Social Sciences > Department of Anthropology > Course

Major developments in archaeological method and theory, emphasizing current perspectives.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Acceptance into the graduate program.

Ethnographic Data Analysis [ANTHR-543]

BYU > College of Family, Home, and Social Sciences > Department of Anthropology > Course

Students will learn ethnographic data analysis methods and then they will apply these methods to their own data. They will bring their own data that they will then analyze during the course. In the process, students will learn to use computer-assisted qualitative data analysis software.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Ethnographic Research Design [ANTHR-590R]

BYU > College of Family, Home, and Social Sciences > Department of Anthropology > Course

Hours: 3.0 Credit, 3.0 Lecture, ARR Lab

Formative Mesoamerica [ANTHR-562]

BYU > College of Family, Home, and Social Sciences > Department of Anthropology > Course

Topics and issues concerning beginnings and development of Mesoamerican civilizations. Mexican and Mayan antecedents of classic Mayan civilization and culture.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Great Basin Archaeology [ANTHR-530]

BYU > College of Family, Home, and Social Sciences > Department of Anthropology > Course

Overview of ethnography, history of research, and prehistory of the Great Basin culture area. Current issues in archaeological research emphasized.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Anthr 350 or equivalent.

Heritage Resource Management [ANTHR-512]

BYU > College of Family, Home, and Social Sciences > Department of Anthropology > Course

Legal and ethical issues for practicing archaeologists. Preservation law, collections law, public archaeology, Native American issues, and careers in archaeology and museums.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Admittance into graduate program in archaeology or certificate program in museum practices.

History of Archaeology [ANTHR-500]

BYU > College of Family, Home, and Social Sciences > Department of Anthropology > Course

Historical approach to development of archaeological knowledge, method, and theory, emphasizing North America and individual contributions.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Acceptance into the graduate program.

Master's Thesis [ANTHR-699R]

BYU > College of Family, Home, and Social Sciences > Department of Anthropology > Course

Hours: 0.5-9.0 Credit, 0.0 Lecture, 0.0 Lab

Museology: Curation and Writing [ANTHR-524]

BYU > College of Family, Home, and Social Sciences > Department of Anthropology > Course

Professional practices supporting the educational, research, and reporting functions of museums, emphasizing museum writing leading to publication, cataloguing, policy writing, exhibition conceptualization, etc.

Hours: 3.0 Credit, 3.0 Lecture, ARR Lab
Prerequisites: Admission to certificate in museum practices program.

Museum Exhibitions and Programming [ANTHR-526]

BYU > College of Family, Home, and Social Sciences > Department of Anthropology > Course

Instruction and practica in all aspects of exhibition development. Current thought and literature in museum education with practica for application.

Hours: 3.0 Credit, 1.0 Lecture, 8.0 Lab

Museum Practices and Technologies [ANTHR-522]

BYU > College of Family, Home, and Social Sciences > Department of Anthropology > Course

Core museum disciplines: collections management, curation, education, exhibition, and conservation. Supporting technologies: database, digital photography, Web design, etc. Career paths.

Hours: 3.0 Credit, 3.0 Lecture, ARR Lab

Museum Projects [ANTHR-596]

BYU > College of Family, Home, and Social Sciences > Department of Anthropology > Course

One or more supervised museum projects, such as producing an exhibition, developing educational materials, conducting inventory, or accessioning collections.

Hours: 3.0 Credit, 0.0 Lecture, 8.0 Lab

Museum Registration and Collections Management [ANTHR-525]

BYU > College of Family, Home, and Social Sciences > Department of Anthropology > Course

Managing anthropological collections: object-handling, object-tracking, accessioning, deaccessioning, collections databases, loans, valuating collections, conservation environments, ethics, and NAGPRA and other laws relating to museums.

Hours: 3.0 Credit, 3.0 Lecture, ARR Lab

Museums and Cultures [ANTHR-511]

BYU > College of Family, Home, and Social Sciences > Department of Anthropology > Course

Museums in society. Cultural foundations of museum content and sociology of museum use. Analyzing museum studies literature. Visits to and critiques of area museums. Final projects in real museums in the region.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Near East Seminar [ANTHR-580]

BYU > College of Family, Home, and Social Sciences > Department of Anthropology > Course

Current issues in Near Eastern archaeological research.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Quantitative Methods for Anthropology [ANTHR-502]

BYU > College of Family, Home, and Social Sciences > Department of Anthropology > Course

Methods of organizing, exploring, and presenting data. Probability and statistical inference.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Readings [ANTHR-694R]

BYU > College of Family, Home, and Social Sciences > Department of Anthropology > Course

Reading about 1,000 pages per credit hour and providing required products.

Hours: 0.5-3.0 Credit, 0.0 Lecture, 0.0 Lab
Prerequisites: Supervising instructor's consent.

Research [ANTHR-695R]

BYU > College of Family, Home, and Social Sciences > Department of Anthropology > Course

Field research, data acquisition, and data analysis. Must be thesis related.

Hours: 0.5-6.0 Credit, ARR Lecture, ARR Lab
Prerequisites: Completion of 18 hours of 500-level core curriculum for MA program.

Southwest Seminar [ANTHR-535]

BYU > College of Family, Home, and Social Sciences > Department of Anthropology > Course

Overview of ethnography and prehistory of American Southwest. Current issues in archaeological research emphasized.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Anthr 350 or equivalent.

Special Topics [ANTHR-590R]

BYU > College of Family, Home, and Social Sciences > Department of Anthropology > Course

Special topics in archaeology, sociocultural anthropology, or museum studies.

Hours: 3.0 Credit, 3.0 Lecture, ARR Lab

Special Topics in Archaeology [ANTHR-590R]

BYU > College of Family, Home, and Social Sciences > Department of Anthropology > Course

Hours: 3.0 Credit, 3.0 Lecture, ARR Lab

Special Topics in Museum Studies [ANTHR-590R]

BYU > College of Family, Home, and Social Sciences > Department of Anthropology > Course

Hours: 3.0 Credit, 3.0 Lecture, ARR Lab

Special Topics in Psychological Anthropology [ANTHR-590R]

BYU > College of Family, Home, and Social Sciences > Department of Anthropology > Course

Hours: 3.0 Credit, 3.0 Lecture, ARR Lab

Allison, James R

BYU > College of Family, Home, and Social Sciences > Department of Anthropology > Faculty

Associate Professor
Anthropology
PhD, Arizona State University, 2000
Research Interest: Archaeology; Great Basin and Southwestern U; Ceramic Analysis; Quantitative Methods

Chase, Zachary J

BYU > College of Family, Home, and Social Sciences > Department of Anthropology > Faculty

Assistant Professor
Anthropology
PhD, The University of Chicago, 2016

Clark, John Edward

Professor
Anthropology
PhD, University of Michigan, 1994
Research Interest: Archaeology; Mesoamerica; Political and Economic Institutions; Cultural Evolution; Ancient Technology; Theory

Crandall, David P

Associate Professor
Anthropology
PhD, Oxford University, 1993
Research Interest: Social Anthropology; South Africa; Kinship; Ritual and Symbols

Finlayson, Cynthia S

Associate Professor
Anthropology
PhD, University of Iowa, 1998
Research Interest: Ancient, Classical, and Islamic Archaeology and Art History; Archaeology of Syria and Jordan; Archaeology and Gender; Museum Studies (M)

Hickman, Jacob Randall

Assistant Professor
Anthropology
PhD, University of Chicago, 2011
Research Interest: Psychological anthropology; Southeast Asia; Hmong diaspora; Messianic religion; Ethnonationalism; Morality and personhood; Migration

Johnson, David J

Associate Teaching Professor
Anthropology
PhD, University of Utah, 1987
Research Interest: Archaeology; Archeometry; Ancient Trade; Near East

Nuckolls, Charles William

Professor
Anthropology
PhD, University of Chicago, 1987
Research Interest: Cultural Anthropology; India, Japan, New Zealand, United States; Psychological Theory

Searcy, Michael T

Assistant Professor
Anthropology
PhD, University of Oklahoma, 2010
Research Interest: Archaeology; U, Southwest/Northwest Mexico; Long-distance interaction; Sociopolitical organization; Maya ethnoarchaeology

Department of Art

Address

Department of Art
E-509 HFAC, Provo, UT 84602-6414
(801) 422-2064
gradvisualarts@byu.edu

Programs

Art Education [488063]
Studio Art [488068]

Two postgraduate degrees are offered in the Department of Art: Art Education (MA) and Studio Art (MFA). Each requires practicing the component disciplines of art, as well as acquiring certain skills, knowledge, and understandings.

These strong graduate programs examine and promote the study, creation, and teaching of the visual arts, from historical and from contemporary perspectives for a balanced understanding of the field. Faculty in each area are leading practitioners and researchers of the theoretical, philosophical, and professional issues of their respective academic specialties. High standards for study and practice in each degree program promote professional levels of practice and accomplishment expected of and achieved by our graduates.

The average number of students in each program and the duration of each program is as follows:

Art Education: twelve students as a cohort group in program; two years to completion.
Studio Art: fourteen students in program; two years to completion.

Fax: (801) 422-0695

Chair: Garold C. Barton
Graduate Coordinator: Christopher Croft Lynn

Resources & Opportunity

MFA Studio Space: Studio space is provided for MFA students in all emphasis areas.

Art Resource Center: The center is an important library resource for graduate study of content, methods of inquiry, and methodology in art disciplines intrinsic to current art education programs. A wide variety of books, journals, art reproductions, curricula, and other visual materials and aids are available. Link: https://byuarted.weebly.com/arc.html

B.F. Larsen: This is an art display space in the center of the HFAC. It consists of the atrium space as well as the 4th and 5th floor hallways adjacent to the atrium. Link: http://dvagalleries.byu.edu/

Gallery 303: This is the secure gallery space in the HFAC located on the 3rd floor in the southwest section of the atrium. There are four discrete spaces within 303, the entry, the main gallery space and two small rooms for installation work. Link: http://dvagalleries.byu.edu/

Museum of Art: The BYU Museum of Art is located on the north side of campus. It is a four-story, modern facility of more than 102,000 square feet in size. The museum houses ten exhibition galleries, an auditorium, classrooms, a small theater, a print study room, security and administrative offices, as well as a gift store. Faculty and students engage collaboratively with the museum in projects that yield exhibitions, texts, documentaries, and other forms of presentation. Major exhibitions from its own collection of over 15,000 works and from other important collections are brought to the museum to provoke inquiry and to contribute to the university's academic discourses. Lectures, conferences, performance, and other educational experiences occur regularly in the museum's varied and versatile spaces. Link: http://moa.byu.edu/

Print Lab: Housed in the Harris Fine Arts Center is the Print Lab, which provides fine art print services as well as access to professional software and equipment. Students and faculty can avail themselves of the services provided such as: wide format art prints, scanning, vinyl cutting, 3D printing, laser cutting, and equipment rental. Link: http://printlab.byu.edu/

Supply Stockrooms: The Department of Art has two stockrooms that serve a variety of courses and student needs. In the Harris Fine Arts Center is the 2D stockroom, which stocks and sells art papers, bookbinding supplies, and other select materials pertinent to art making. Cameras, video and sound recording equipment, and other types of equipment important for photography and new genres can also be checked out through this stockroom. Purchases in the 2D stockroom can be made using a signature card. Link: http://byustockroom.weebly.com/. There is also a 3D stockroom in Building B-66, which stocks and sells select materials important to the disciplines or ceramics and sculpture.

Woodshop: in addition to the woodshop in Building B66 that is a part of the department 3D facility, the department has a woodshop in the Harris Fine Arts Center that supports gallery functions and the curriculum of various courses. Students may use the space during open hours after being trained on proper equipment use and paying a shop fee. The woodshop can be a helpful resource when making art or preparing for a show.

Financial Assistance

Financial assistance is available through tuition scholarships, supplemental awards, and teaching assistantships.

Art Education (MA) [488063]

The MA in art education is a cohort program intended for teachers who desire intensive curriculum development, professional development, and additional content and skills in the disciplines of a comprehensive art program. This program prepares students to pursue a PhD or EdD in art education if that is their intention. In addition to reviewing research literature in art education, this program has a rigorous studio practice component designed to integrate teaching and artistic practice.

Requirements for Degree.

> Credit hours (36 hours): minimum 30 course-work hours plus 6 thesis hours. Course work hours primarily from 500- and 600-level courses (no more than 9 hours of 300- or 400-level courses may apply).
> Course requirements: 15 hours of core art education seminar (ArtEd 678R); 12 hours of ArtEd 578R (3 hours of digital art; 9 hours of studio art); 3 hours of art history courses; 6 thesis hours (ArtEd 699R).
> Select graduate committee and submit study list no later than second week of second semester.
> Examinations: comprehensive examination and oral defense of thesis.

Additional Requirements

1. Portfolio of 20 pieces should be submitted on a USB flash drive
2. One or two written papers
3. Baccalaureate degree from an accredited art institution
4. Certification to teach in public schools
5. Two years' teaching experience
6. Resume

Deadline Notes

This program admits every odd year. The next admission will be for Fall 2019.

Studio Art (MFA) [488068]

The MFA in art, a terminal degree, is dedicated to generating artists with significant skills and understandings that can influence the discipline. In alignment with current trends in art, the program accommodates and nurtures students working in any medium or discipline, including but not limited to: Painting, Drawing, Printmaking, Ceramics, Sculpture, Photography, Video, Performance, Installation, Digital and New Media. Program requires 60 credit hours.

Requirements for Degree.

Credit hours: MFA degree (60 hours): minimum 54 hours of approved course work, plus 6 hours of final project report.
Time limitations: the degree is a two-year program and must be completed within five years. After two years of residency there is no guarantee of financial assistance or studio privileges.
Course requirements: Art 640 (2), Art Theory (Art 626, 695R) (12), Art 619R (4). Studio emphasis (34 hours): from Art 680R; 694R, Electives (6 hours). Participate in two travel study activities. 699R, Thesis (6 hours). (Program of Study is required at the beginning of second full semester. Participation in one per year off campus exhibition (proposed, invitational, or competitive).
Evaluations: Near the end of each Fall and Winter semester during a student's enrollment, the full faculty will conduct studio reviews of the student's progress without the student present. Until a student's Final Project Proposal is approved by their Graduate Committee, Full-Faculty Reviews are held to determine whether candidates are progressing satisfactorily in the program, and if the student is making full use of their studio space.
Oral defense and examination of final project: the candidate must engage his or her committee for the oral defense after installation of the final project and completion of the final project report. Defense must be scheduled at least two weeks prior.
Final project: to be produced and exhibited in the format of a solo exhibition.
Final project report: candidates will submit a written final project report.

Required Tests

TOEFL or IELTS

Additional Requirements

1. Portfolio of 20 pieces should be submitted on a USB flash drive

2. Baccalaureate degree or equivalent in art with 20 hours of upper-division course work and 12 hours of art history

3. Artist statement - 250 words or less

a. Your statement should directly address the conceptual concerns behind your work, and how those concerns have driven the making process.

4. Letter of Intent - 1 page.

a. Describe why you specifically selected BYU's MFA Studio Art program for furthering your education.

b. You should write about which department of art faculty you would like to work with, and why you have selected these specific faculty members. We understand that this may change after admission

c. Please outline how you hope to develop and evolve as an artist through the Studio Art MFA program at BYU.

5. Resume

Art Education Seminar: Issues and Trends [ARTED-678R]

BYU > College of Fine Arts and Communications > Department of Art > Course

Seminar topics emphasizing issues and trends in art education. Topics investigated, discussed, and evaluated, depending on student needs.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Art Education Studio [ARTED-578R]

BYU > College of Fine Arts and Communications > Department of Art > Course

MA courses in ceramics, drawing, figure drawing, oil painting, aqueous painting, printmaking, crafts, sculpture, digital art, and conceptual art media.

Hours: 3.0 Credit, 0.0 Lecture, 6.0 Lab
Prerequisites: Graduate student status.

Art Theory Context [ART-610]

BYU > College of Fine Arts and Communications > Department of Art > Course

Reviewing and critiquing major theoretical approaches in art history, emphasizing the space of display, the museum, and the work's social reception.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Current Art Practice [ART-626]

BYU > College of Fine Arts and Communications > Department of Art > Course

Current issues in art.

Hours: 3.0 Credit, 2.5 Lecture, 0.0 Lab

Graduate Business Practices [ART-640]

BYU > College of Fine Arts and Communications > Department of Art > Course

Business practices and theories associated with managing a career in art.

Hours: 2.0 Credit, 2.0 Lecture, 0.0 Lab

Master's Thesis [ART-699R]

BYU > College of Fine Arts and Communications > Department of Art > Course

Written report that places final exhibition in a contextual setting and defines, defends, and justifies its existence. Report clarifying how exhibit verifies original proposal.

Hours: 0.0-6.0 Credit, 0.0 Lecture, 0.0 Lab
Prerequisites: Graduate student status and successful completion of preliminary exhibit.

Master's Thesis [ARTED-699R]

BYU > College of Fine Arts and Communications > Department of Art > Course

Hours: 0.5-6.0 Credit, ARR Lecture, ARR Lab

Special Problems [ART-694R]

BYU > College of Fine Arts and Communications > Department of Art > Course

Hours: 0.5-3.0 Credit, 0.0 Lecture, ARR Lab
Prerequisites: Instructor's and committee consent.

Studio Methodologies [ART-680R]

BYU > College of Fine Arts and Communications > Department of Art > Course

Individual studio experience from selected faculty.

Hours: 1.0-6.0 Credit, Arr Lecture, 0.0 Lab

Studio Methodologies Seminar [ART-619R]

BYU > College of Fine Arts and Communications > Department of Art > Course

Seminar instruction and individual studio critiques from visiting artists.

Hours: 1.0 Credit, 1.0 Lecture, 0.0 Lab

Theory-Based Directed Studies [ART-695R]

Trends in the visual arts; theory-based readings, writing, and art practice.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Graduate status.

Barney, Daniel T

Associate Professor
Art
PhD, University of British Columbia, 2009
Research Interest: Art Education, Qualitative Research Methodologies and Strategies, Pedagogy and Curriculum Studies

Barton, Garold C

Professor
Art
MFA, Ohio State University, 1994
Research Interest: Printmaking

Buehler, Fidalis D

Associate Professor
Art
MFA, Brigham Young University, 2007
Research Interest: Studio Arts, Painting Emphasis

Christensen, Brian D

Associate Professor
Art
MFA, Washington University, St. Louis, 1992
Research Interest: Ceramics

Draper, Bryon K

Associate Professor
Art
MFA, Brigham Young University, 1995
Research Interest: Sculpture

Everett, Daniel Brian

Associate Professor
Art
MFA, School of the Art Institute of Chicago, 2009
Research Interest: Art

Everett, Peter H

BYU > College of Fine Arts and Communications > Department of Art > Faculty

Professor
Art
MFA, Pratt Institute, 2000
Research Interest: Painting

Graham, Mark Allen

BYU > College of Fine Arts and Communications > Department of Art > Faculty

Professor
Art
EdD, Teachers College of Columbia University, 2001
Research Interest: Curriculum and Teaching

Lynn, Christopher Croft

BYU > College of Fine Arts and Communications > Department of Art > Faculty

Associate Professor
Art
MFA, The Ohio State University, 2002
Research Interest: Art

Ostraff, Joseph Evan

BYU > College of Fine Arts and Communications > Department of Art > Faculty

Professor
Art
MFA, University of Washington, 1982
Research Interest: Painting

Watson, Jennifer Ann

BYU > College of Fine Arts and Communications > Department of Art > Faculty

Assistant Professor
Art
MFA, The Ohio State University, 2014

Department of Biology

BYU > College of Life Sciences > Department

Address

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801-422-7137
biogradmanager@byu.edu

Programs

Biological Science Education [282060]
Biology [282061]
Biology [282070]

The Department of Biology offers graduate training experiences in a variety of areas, including evolutionary biology, ecology, systematics, bioinformatics, conservation biology, and molecular evolution. We integrate approaches from the molecular and genetic levels, through the organismal level, to the population and ecosystem level to investigate a variety of questions in these areas. Because of our integrative nature, we have substantial expertise in plant and animal (vertebrate and invertebrate) systems. Our program provides an exceptional graduate community, including master's students, doctoral students, and postdoctoral fellows.

The Department of Biology offers three graduate degree programs: Biological Science Education-MS, Biology-MS, and Biology-PhD.

The Department of Biology has a vibrant graduate program. Students working toward a master's degree generally complete all requirements within two years. PhD students, however, routinely require about five years to complete their doctoral program.

The current Graduate Student Handbook is available to view online at biology.byu.edu.

Chair: Richard Gill
Graduate Coordinator: Byron J. Adams

Resources & Opportunity

DNA Sequencing Facility. The DNA Sequencing Center was established to help researchers process DNA samples efficiently and economically. The center is equipped with an ABI 3730 96-capillary automated sequencer, an ABI 3100 16-capillary machine, an illumina HiSeq 2500, and a PacBio Sequel. Operated by a faculty director, a full-time manager, a part-time manager, and a number of undergraduate student assistants, the center is open for use by undergraduates, graduate students, faculty, and, through special arrangements, researchers from outside the university. The centralization of equipment and expertise has dramatically reduced the expense of DNA research while increasing the efficiency and quality of the data generated.

Monte L. Bean Life Science Museum. Extensive biological collections are housed in the Monte L. Bean Life Science Museum and are available for supervised student research. Curators and their students often conduct fieldwork throughout the U.S. and in many other parts of the world.

Electron Optics Laboratory. In this lab, researchers can accomplish all standard electron optics procedures. The laboratory has transmission and scanning electron microscopes equipped with X-ray microanalysis capabilities, plus accessory equipment for freeze-fracture, freeze-drying, and necessary support facilities, including confocal laser scan microscopy.

USDA Forest Service Shrub Science Laboratory. Housed on the BYU campus, this lab supports one of the finest research programs on native shrubs in the world. Here eleven PhD research scientists with adjunct faculty appointments work with BYU faculty members and graduate students. Laboratories, greenhouses, and gardens on campus and around the state support studies on desert shrubs.

Lytle Ranch Preserve. Graduate students are able to do year-round research on desert plants and animals at the Lytle Ranch. This large preserve is located in the moderate desert climate of southwestern Utah. For access to the preserve, contact the Monte L. Bean Life Science Museum at 801-422-5052 or at secretary.museum@byu.edu.

Opportunities. Greenhouses, gardens, an arboretum, a small animal vivarium, an evolutionary ecology laboratory with climate controlled rooms and fish rearing facilities, and a tissue culture room are on or near campus. Laboratory facilities include gas chromatography-mass spectrometers, isotope ratio mass spectrometers, transmission and scanning electron microscopes, ultra centrifuges, visible ultraviolet and infrared spectrophotometers, gas chromatographs, high performance liquid chromatographs, infrared gas analyzers, atomic absorption spectroscopy, flow cytometry, microarray scanners, plate readers, an MRI research facility, and other specialized research equipment.

Faculty and graduate students are engaged in a number of significant and interesting research projects, funded both externally and internally. Some of these include the following: evolutionary and biochemical ecology; plant and animal systematics; bioinformatics; evolutionary and conservation biology; molecular evolution; phylogeography; population, community, and ecosystem ecology; biogeochemistry; evolution of development; marine and freshwater biology; biological science education; environmental science; and conservation of rare species.

Financial Assistance

Teaching and research assistantships are offered on a competitive basis by the department. PhD students are guaranteed a teaching assistant position for each semester enrolled while MS students are guaranteed TA employment for the Fall and Winter semesters.

Tuition assistance is also available for both the MS and PhD degrees. Master's students receive a $1000 tuition award for Fall and Winter semesters, and PhD students are granted a full tuition waiver for all semesters enrolled.

Biological Science Education (MS) [282060]

The MS degree in biological science education is designed to prepare students with advanced skills and knowledge for teaching in high schools and colleges. Students opting for this degree pursue original research and present results in formal thesis format. Since all research for this degree is expected to be of publication quality, theses are usually prepared in a form suitable for immediate submission for review by an appropriate scholarly journal. This degree is not an alternative teacher certification program.

Requirements for MS Degree Program in Biological Science Education:

Credit hours (30): Minimum 24 course work hours plus 6 thesis hours; 20 hours must be in the 500-level series and above (can include Bio 691R, 699R, etc.).
Required courses: Bio 691R (Graduate Seminar two semesters); Bio 503 (Graduate Orientation) or equivalent. Additional courses as determined by student's advisory committee and approved by department graduate coordinator.
Annual progress reviews by advisory committee and graduate committee.
Presentation of research prospectus to advisory committee.
Thesis: Standard university thesis or journal publication format.
Examinations: (A) Course work oral examination, (B) oral defense of research, and (C) oral defense of thesis.

Additional Requirements

Baccalaureate degree or equivalent

Deadline Notes

Application review begins December 31.

Biology (MS) [282061]

The MS degree in biology is designed to give students an opportunity to develop research projects within a hypothesis-testing framework, with a conceptual focus on some aspect of ecological or evolutionary theory. Projects might include, but are not limited to, studies in population, community, or ecosystem ecology, population or conservation genetics, phylogeography, molecular evolution, bioinformatics, or phylogenetic systematics. Students in any of these areas will present and defend a thesis based on original work. Because all such research is expected to be suitable for publication in peer-reviewed journals, thesis manuscripts are expected to be prepared for immediate submission to an appropriate journal.

Requirements for MS Degree Program in Biology:

Credit hours (30): Minimum 24 course work hours plus 6 thesis hours; 20 hours must be in the 500-level series and above (can include Bio 691R, 699R, etc.).
Required courses: Bio 691R (Graduate Seminar two semesters); Bio 503 (Graduate Orientation) or equivalent. Additional courses as determined by student's advisory committee and approved by department graduate coordinator.
Annual progress reviews by advisory committee and graduate committee.
Presentation of research prospectus to advisory committee.
Thesis: Standard university thesis or journal publication format.
Examinations: (A) Course work oral examination, (B) oral defense of research, and (C) oral defense of thesis.

Additional Requirements

Baccalaureate degree or equivalent

Biology (PhD) [282070]

The PhD degree in biology is structured to challenge students to develop intellectual independence. This is demonstrated by designing and implementing a research project that requires substantial work on an important question in ecological or evolutionary theory, then analyzing and synthesizing results in a way that reflects the student's maturation as a scholar. Projects might include, but are not limited to, studies in population, community, or ecosystem ecology, population or conservation genetics, phylogeography, molecular evolution, bioinformatics, or phylogenetic systematics. Students will present and defend a dissertation project that includes chapters to be published as stand-alone manuscripts in appropriate scholarly journals.

Requirements for PhD Degree Program in Biology:

Credit hours: Minimum 54 credit hours, including 18 hours of dissertation Bio 799R.
Required courses: Bio 691R (Graduate Seminar four semesters); Bio 503 (Graduate Orientation) or equivalent. Additional courses as determined by student's advisory committee and approved by department graduate coordinator.
Students who have earned a master's degree must complete at least 36 credit hours of additional graduate work at BYU beyond the master's degree.
Annual progress reviews by advisory committee and graduate committee.
Presentation of research prospectus to advisory committee.
Dissertation: Standard university dissertation or journal publication format.
Examination: (A) Qualifying examination: oral examination, grant proposal, and literature review; (B) oral defense of research; and (C) oral defense of dissertation.

Additional Requirements

Baccalaureate degree or equivalent

(Bio - MMBio) Molecular Evolution [BIO-641]

BYU > College of Life Sciences > Department of Biology > Course

Theoretical foundations of molecular evolution; molecular phylogenetics, estimates of population genetic parameters, gene duplication, horizontal gene transfer, rates of evolution, molecular clocks.

Hours: 4.0 Credit, 4.0 Lecture, 0.0 Lab
Prerequisites: Bio 420 or equivalent.

Advanced Ecology [BIO-559R]

BYU > College of Life Sciences > Department of Biology > Course

Hours: 1.0-6.0 Credit, ARR Lecture, ARR Lab
Prerequisites: Instructor's consent.

Advanced Genetic Analysis [BIO-530]

BYU > College of Life Sciences > Department of Biology > Course

Close examination of core genetic principles as presented in both classic and current literature with the goal of understanding current uses of genetics to examine gene function. Emphasis given to the experimental basis of transmission genetics (transfer of information between generations) as presented in classic studies and contemporary uses of genetic analysis to define gene function in current literature.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Advanced Science In-Service [BIO-589R]

BYU > College of Life Sciences > Department of Biology > Course

In-service course for science teachers. Topics vary.

Hours: 1.0-5.0 Credit, ARR Lecture, ARR Lab

Advanced Topics in Ecology and Evolution [BIO-559R]

BYU > College of Life Sciences > Department of Biology > Course

Current topics in ecology, evolution, and systematics.

Hours: 1.0-6.0 Credit, ARR Lecture, ARR Lab
Prerequisites: Instructor's consent.

Advanced Topics in Science Education [BIO-679R]

BYU > College of Life Sciences > Department of Biology > Course

Current topics in biological science education.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Angiosperm Phylogeny [BIO-512]

BYU > College of Life Sciences > Department of Biology > Course

Description, classification, phylogeny, and geographic distribution of flowering plant families.

Hours: 3.0 Credit, 2.0 Lecture, 4.0 Lab
Prerequisites: Bio 430 or equivalent.

Animal Disease, Biosecurity, and Zoonoses [BIO-525]

BYU > College of Life Sciences > Department of Biology > Course

Animal disease emphasizing prevention, organ systems affected, biosecurity, and zoonotic potential.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Bio 380 or instructor's consent.

Aquatic Entomology [BIO-541]

BYU > College of Life Sciences > Department of Biology > Course

Morphology, classification, biology, and functional ecology of aquatic insects. Field trips required.

Hours: 4.0 Credit, 2.0 Lecture, 4.0 Lab
Prerequisites: Bio 441 or equivalent.

Behavioral Ecology [BIO-550]

BYU > College of Life Sciences > Department of Biology > Course

Students in Behavioral Ecology will study the biological mechanisms and evolutionary causes and consequences of a range of animal behaviors. The course will be geared towards helping students to gain a broad perspective of the range of factors that influence animal behavior and to provide students with the tools conduct, evaluate, and understand research on the ecology of animal behavior. We will cover a broad range of topics that are central to the field of behavioral ecology, including the economics of behavioral decisions, predator-prey arms races, resource competition, group living, reproductive selection and conflict, parental care, mating systems, social behaviors, cooperation and altruism, and communication. Each of these topics will be examined from an evolutionary and ecological perspective, with a focus on helping students first to understand the underlying theory and concepts, and second to grasp the research techniques and approaches used to increase knowledge in this field.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Bioinformatics and Data Analysis 1 [BIO-664]

BYU > College of Life Sciences > Department of Biology > Course

Bioinformatics skills have become critical for biological research. This course is intended to be the first half of a two-semester sequence that introduces students to bioinformatics. Students will be introduced to the Linux operating system, Python, and high performance computing. Students will acquire the skills to perform data manipulations and simple analyses on biological datasets.

Hours: 4.0 Credit, 3.0 Lecture, 1.0 Lab

Bioinformatics and Data Analysis 2 [BIO-665]

BYU > College of Life Sciences > Department of Biology > Course

Students will develop skills in applying bioinformatics algorithms to biological data and in critically analyzing results. Building on skills and concepts learned in Bio 664, students will learn to write code in the R programming language, perform statistical tests, and create data visualizations. Students will interpret and discuss findings from prior research studies from various biological subdisciplines. Students will conceive, execute, and present an independent research study.

Hours: 2.0 Credit, 2.0 Lecture, 1.0 Lab

Biological Applications in Electron Microscopy [BIO-581]

BYU > College of Life Sciences > Department of Biology > Course

Theoretical and practical aspects of transmission and scanning electron microscopy of biological samples.

Hours: 3.0 Credit, 2.0 Lecture, 4.0 Lab

Biological Systematics and Curation [BIO-510]

BYU > College of Life Sciences > Department of Biology > Course

Principles, methods, and tools of taxonomy and systematics as applied to species delimitation, specimen-based research, nomenclatural codes, and the curation of biological specimens.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Community and Ecosystem Ecology [BIO-653]

BYU > College of Life Sciences > Department of Biology > Course

Integrating ecological and biogeochemical concepts to understand the structuring of biological communities and ecological systems. Topics include community assembly, trophic dynamics, systems biology, ecosystem services, and biodiversity-ecosystem function.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Bio 350, 420; or equivalents.

Doctoral Dissertation [BIO-799R]

BYU > College of Life Sciences > Department of Biology > Course

Hours: 1.0-9.0 Credit, ARR Lecture, ARR Lab

Electron Microscopy Laboratory [BIO-681R]

BYU > College of Life Sciences > Department of Biology > Course

Advanced research in electron microscopy.

Hours: 1.0-6.0 Credit, ARR Lecture, ARR Lab
Prerequisites: Instructor's consent.

Evolutionary and Ecological Modeling [BIO-555]

BYU > College of Life Sciences > Department of Biology > Course

Using models in ecology. Practical experience in analytical, simulation, and agent-based models.

Hours: 2.0 Credit, 2.0 Lecture, 0.0 Lab
Prerequisites: Senior status in bioinformatics program or graduate status; Stat 511, 512, or equivalent; instructor's consent.

Evolutionary Ecology [BIO-652]

BYU > College of Life Sciences > Department of Biology > Course

Exploring the diversity of life by integrating ecological and evolutionary perspectives. Topics include theoretical population ecology, advanced evolutionary biology, and behavioral ecology.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Bio 350, 420; or equivalents.

Field Biology [BIO-559R]

BYU > College of Life Sciences > Department of Biology > Course

Hours: 1.0-6.0 Credit, ARR Lecture, ARR Lab
Prerequisites: Instructor's consent.

Graduate Seminar [BIO-691R]

BYU > College of Life Sciences > Department of Biology > Course

Hours: 0.5 Credit, 1.0 Lecture, 0.0 Lab

Lichenology [BIO-511]

BYU > College of Life Sciences > Department of Biology > Course

Classification, morphology, and ecology on lichens. Field trip required.

Hours: 3.0 Credit, 2.0 Lecture, 3.0 Lab

Limnology [BIO-556]

BYU > College of Life Sciences > Department of Biology > Course

Lakes, reservoirs; their biota and physical/chemical properties.

Hours: 3.0 Credit, 2.0 Lecture, 4.0 Lab
Prerequisites: Bio 350, Chem 106; or equivalents.

Master's Thesis [BIO-699R]

BYU > College of Life Sciences > Department of Biology > Course

Hours: 1.0-9.0 Credit, ARR Lecture, ARR Lab

Phylogenetic Systematics [BIO-640]

BYU > College of Life Sciences > Department of Biology > Course

Theoretical foundations of modern systematics, methods of phylogenetic inference, and discussion of contemporary literature.

Hours: 4.0 Credit, 4.0 Lecture, 0.0 Lab
Prerequisites: Bio 420 or equivalent.

Physiological Ecology [BIO-559R]

BYU > College of Life Sciences > Department of Biology > Course

Hours: 1.0-6.0 Credit, ARR Lecture, ARR Lab
Prerequisites: Instructor's consent.

Population Genetics [BIO-560]

BYU > College of Life Sciences > Department of Biology > Course

Basic principles of population genetics applied to natural populations; drift, selection, and nonrandom mating; inferring population subdivision, migration, and gene flow.

Hours: 4.0 Credit, 4.0 Lecture, 0.0 Lab
Prerequisites: Bio 420 or equivalent.

Practicum in Biology Teaching [BIO-695R]

BYU > College of Life Sciences > Department of Biology > Course

Curricula, principles, concepts, and experiences in teaching biology effectively.

Hours: 4.0-8.0 Credit, ARR Lecture, ARR Lab

Publishing in Peer-Reviewed Journals [BIO-517]

BYU > College of Life Sciences > Department of Biology > Course

Each student enrolled in this course will be guided through the processes of writing a scientific manuscript and submitting it for publication in a peer-reviewed journal.

Hours: 2.0 Credit, 1.0 Lecture, 1.0 Lab

Research Orientation [BIO-503]

BYU > College of Life Sciences > Department of Biology > Course

Introduction to graduate school and research techniques.

Hours: 1.0 Credit, 1.0 Lecture, 0.0 Lab

Special Problems in Biology [BIO-694R]

BYU > College of Life Sciences > Department of Biology > Course

Independent student research under faculty supervision.

Hours: 1.0-6.0 Credit, ARR Lecture, ARR Lab
Prerequisites: Supervisor's consent.

Speciation and Phylogeography [BIO-654]

BYU > College of Life Sciences > Department of Biology > Course

Students will understand theoretical foundations of speciation and phylogeography including key theories and research practices; implement empirical approaches to analyze, interpret, and communicate relevant biological issues; and conceive, execute, and present a related independent research study.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Stream and Wetland Ecology [BIO-557]

BYU > College of Life Sciences > Department of Biology > Course

Stream and wetland ecology; their biota and their physical/chemical properties.

Hours: 4.0 Credit, 3.0 Lecture, 4.0 Lab
Prerequisites: Bio 350, Chem 106; or equivalent.

Symbiosis [BIO-520]

BYU > College of Life Sciences > Department of Biology > Course

For graduate and upper-level undergraduate students, an introduction to the differences and commonalities among a diverse range of symbioses involving animals, plants, fungi and prokaryotes and the ways in which they influence biological communities. Topics include the human gut microbiome, mycorrhizas, plant-rhizobium symbiosis, plant-insect symbioses, marine invertebrate-bacterial symbioses, ant symbioses, lichens and soil crusts.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Tropical Biology [BIO-559R]

BYU > College of Life Sciences > Department of Biology > Course

Hours: 1.0-6.0 Credit, ARR Lecture, ARR Lab
Prerequisites: Instructor's consent.

University Teaching 1: Advanced Pedagogical Methods [BIO-676]

BYU > College of Life Sciences > Department of Biology > Course

An exploration into learning theories that influence teaching pedagogies: understanding how students learn; designing curriculum to fit current research-backed models of learning; understanding assessment strategies; practicing backward design; and preparing graduate students for an authentic teaching experience.

Hours: 3.0 Credit, 2.0 Lecture, 3.0 Lab

University Teaching 2: Instructional Design [BIO-677]

BYU > College of Life Sciences > Department of Biology > Course

Guided experience in development and evaluation of instructional product: analyzing learning outcomes; developing instructional materials and assessment instruments; critique of finished instruction; and practical experience under the direction of a faculty member.

Hours: 2.0 Credit, 2.0 Lecture, 0.0 Lab

University Teaching 3: Mentored Classroom Practicum [BIO-678]

BYU > College of Life Sciences > Department of Biology > Course

Authentic teaching experience under the mentorship of a faculty member.

Hours: 2.0 Credit, 0.0 Lecture, 6.0 Lab

Adams, Byron James

BYU > College of Life Sciences > Department of Biology > Faculty

Professor
Biology
PhD, University of Nebraska, 1998
Research Interest: Molecular Systematics, Evolutionary Ecology, Ecological Genomics

Belk, Mark C

BYU > College of Life Sciences > Department of Biology > Faculty

Professor
Biology
PhD, University of Georgia, 1992
Research Interest: Evolutionary Ecology

Bybee, Seth Mikaya

BYU > College of Life Sciences > Department of Biology > Faculty

Assistant Professor
Biology
PhD, University of Florida, 2008
Research Interest: Insect Phylogenetics and Evolution of Insect Visual Systems

Clark, Shawn M

BYU > College of Life Sciences > Department of Biology > Faculty

Research Professor
Biology
PhD, Ohio State University, 1987
Research Interest: Museum Curation, Insect Systematics

Gill, Richard Angus

BYU > College of Life Sciences > Department of Biology > Faculty

Associate Professor
Biology
PhD, Colorado State University, 1998
Research Interest: Ecosystem and Physiological Ecology

Jensen, Jamie L

BYU > College of Life Sciences > Department of Biology > Faculty

Associate Professor
Biology
PhD, Arizona State University, 2008
Research Interest: Biological Science Education

Johnson, Jerald B

BYU > College of Life Sciences > Department of Biology > Faculty

Professor
Biology
PhD, University of Vermont, 2000
Research Interest: Evolutionary Ecology

Johnson, Leigh A

BYU > College of Life Sciences > Department of Biology > Faculty

Professor
Biology
PhD, Washington State University, 1996
Research Interest: Plant Systematics and Evolution

Johnson, Robert L

Associate Research Professor
Biology
PhD, Brigham Young University, 2008
Research Interest: Plant Taxonomy and Plant-Insect Interactions

Kauwe, John Sai Keong

Associate Professor
Biology
PhD, Washington University in St. Loius, 2007
Research Interest: Genetic Architecture of Complex Human Diseases

Koide, Roger T

Professor
Biology
PhD, University of California, Berkeley, 1984
Research Interest: Physiological and Community Ecology of Plants and Fungi

Leavitt, Steven D

Assistant Professor
Biology
PhD, Brigham Young University, 2010
Research Interest: Evolution, Lichenology, Symbioses, Phylogenetic Systematics

Nelson, C Riley

Professor
Biology
PhD, Brigham Young University, 1986
Research Interest: Entomology, Ecology, Systematic Biology

Peck, Steven Lee

Associate Professor
Biology
PhD, North Carolina State University, 1997
Research Interest: Environmental Biostatistics, Biomathematics, Entomology

Piccolo, Stephen R

Assistant Professor
Biology
PhD, University of Utah, 2011
Research Interest: Bioinformatics, Genomics

Rader, Russell Ben

Professor
Biology
PhD, Colorado State University, 1987
Research Interest: Freshwater Evolutionary Ecology

Ridge, Perry Gene

Assistant Professor
Biology
PhD, Brigham Young University, 2013
Research Interest: Bioinformatics, Computational Biology

Roeder, Beverly L

Professor
Biology
PhD, Pennsylvania State University, 1990
Research Interest: Anatomy, Physiology, Medicine and Surgery, Animal Health, Prevention and Diagnoses of Metabolic Disorders

Rogers, Duke Sanford

Professor
Biology
PhD, University of California, Berkeley, 1986
Research Interest: Phylogenetic Systematics, Mammalogy, Rodent Disease Ecology

Whipple, Clinton Jeremy

Associate Professor
Biology
PhD, University of California, San Diego, 2006
Research Interest: Evolution of Plant Development

Whiting, Michael Frank

Professor
Biology
PhD, Cornell University, 1994
Research Interest: Entomology, Phylogenetic Theory and Practice

Wilcox, Edward R

Research Associate Professor
Biology
PhD, University of California, Davis, 1982
Research Interest: Human Genetics

Master's of Business Administration (MBA)

Address

Master's of Business Administration (MBA)
W437 TNRB, Provo, UT 84602-3131
(801) 422-3500
mba@byu.edu

Programs

Business Administration [234060]
Business Administration - Executive Program [234064]

The master of business administration program (MBA) is overseen by the Marriott School of Management. A two-year program designed to prepare the graduate student for a career in business, the program offers a world-class academic experience that enables students to integrate the most advanced theories, models, and concepts into real-life learning situations. Courses are integrated across disciplines to improve understanding of individual business functions and the firm as a total enterprise. Case studies, international immersions, simulations, case competitions, collaborative team projects, and immersive field-based learning make the BYU MBA educational experience practical, rigorous, and leadership-focused.

The MBA program attracts, admits, and graduates students who are committed to BYU's unique mission. Purposes of the program include:

1. To help each student better understand the balanced development of the total person and the complete leader and that faith in the teachings of the restored gospel of Jesus Christ are relevant to professional life.
2. To develop in students those professional skills that will assist them in becoming influential leaders in their homes, their churches, their communities, and their professions.
3. To expand students' visions of their possibilities for future professional and other endeavors.

The curriculum has been designed to achieve the twofold task of giving the student (1) a general business education and (2) depth in area(s) bearing specifically on personal professional interests.

Students choose from five designed majors: finance, marketing, global supply chain management, strategic human resource management, and entrepreneurship. Students can also design their own track to fit their career goals.

For the most recent and complete information visit our website: http://mba.byu.edu

A brief description of each track follows:

Finance

The finance track prepares students to work in corporate finance or with financial institutions. The corporate finance curriculum trains students for careers as financial analysts, controllers, and treasurers within large corporations. The financial institutions curriculum trains students for careers in investment banking, commercial banking, and securities management. The corporate finance curriculum is appropriate for students who seek general management positions with a strong financial background, whereas the financial institutions curriculum is more specialized and focused on positions in finance firms.

Marketing

The marketing major builds on proven industry experience and academic achievements in the areas of marketing information systems, international brand management, and market analysis. This track prepares students for employment in product/brand management, e-commerce/database marketing, and high-technology marketing.

Global Supply Chain Management

The supply chain is the complete sequence of companies and value-enhancing activities required to transform basic raw materials into useful products and services for customers. Successful companies effectively manage operations within the walls of their own organization. Global supply chain management is one of the fastest growing job markets for business graduates.

Strategic Human Resources

The strategic human resources major provides the fundamentals to make organizations better through the strategic management of their most important asset-talented people. The strategic human resources curriculum equips students with leading-edge theories and the best practices, analytical and diagnostic skills and tools to become more effective change agents in organizations. Career opportunities exist in corporate human resources roles, both in HR generalist roles (e.g., HR business partner) and in HR specialist roles (e.g., leadership development, executive compensation), as well as in organizational consulting.

Entrepreneurship

Students interested in pursuing an entrepreneurship major should be highly focused on either creating new ventures or launching new products or divisions within larger organizations (intrapreneurship). The entrepreneurship major works closely with the Rollins Center of Entrepreneurship and Technology to provide our students internships, externships, seed funding, and a network of successful entrepreneurs (such as the Founders Organization) and venture seed groups to provide the necessary resources and relationships to successfully launch new ventures.

Fax: 801-422-0513

Program Director: Grant R. McQueen

Resources & Opportunity

Business administration students utilize the N. Eldon Tanner Building, which houses the Marriott School of Management. This unique glass and granite building is a wonderfully versatile and inspiring place for students studying business and public management.

The N. Eldon Tanner Building includes a 76,000 square foot expansion dedicated in October 2008. The new four-story building expansion is attached to the west side of the current building. This expansion includes: tiered case rooms, flat classrooms, team study areas, open study areas, lockers, MBA and MPA student lounges, MBA program offices, faculty offices, conference rooms, and a New York-style deli. Part of this expansion also includes a three-level, open-air parking structure.

The Marriott School is recognized as one of the outstanding management schools in the nation. Faculty are actively engaged in research and publication and fill leadership positions in a number of national professional organizations. The school has developed innovative educational programs that include internships, executive visitation programs, special student consulting and research projects, and other activities designed to bring management education and training closer to management practice. This is accomplished, in part, through the Marriott School's National Advisory Council and the Executives on Campus Program.

Consisting of two hundred prominent business and government executives, the National Advisory Council lends major support to the Marriott School. Students benefit by interacting with council members in special campus lectures and seminars and visiting or working with these executives in their respective organizations. Furthermore, the council assists students with placement opportunities, helps develop funding sources for scholarships, and provides professional development for faculty members.

The Executives on Campus Program gives students an opportunity to interact with distinguished business and government leaders who come to campus. These executives visit classes and meet with student organizations as well as participate in the Executive Lecture Series and the Entrepreneurship Lecture Series.

Financial Assistance

The MBA program utilizes the Marriott School's financial aid provisions. Qualified students can receive aid from the Marriott School of Management Scholarship Fund, private scholarship donations, and loan assistance.

Scholarships

The Marriott School currently has over forty donor funded scholarships. On-line applications for these scholarships are made available to second-year, full-time MBA students in January (deadline March 1).

In addition to these private scholarships, the full-time MBA program awards scholarship funds to first-year students based on academic merit, work experience, and diverse life experiences.

Assistantships

Second year students can apply for research and teaching assistantships at the end of their first year.

Loans

Several loans are available for Marriott School students:

Marriott School loans: available to full-time Marriott School day students. Marriott School loans are handled on an individual basis, dependent on financial need and standing within the participating program.
BYU short-term loans: available for up to the cost of tuition only.

Federal Stafford loans: subsidized by the U.S. government. Not available for international students.

We invite you to visit the financial aid website at http://financialaid.byu.edu for detailed information as well as to access financial aid applications.

Business Administration (MBA) [234060]

Requirements for Degree

Curriculum:

First-year: All entering MBA students are required to be enrolled in the management core classes during the first year (two 15-week semesters) of study. The Marriott School MBA program follows a strict lockstep format wherein first-year students enter the program in the fall, then take all their classes together during the first year. **Because of the intensity of the courses and the number of hours spent in group work outside the class room, students cannot work during the first year of the program.**

Second-year: During their second year, students are free to choose from a variety of elective courses to fulfill their chosen majors within the MBA program.

Required Tests

GMAT; GRE; TOEFL or IELTS

Additional Requirements

1. All admitted MBA students are required to pass a basic preparation course and proficiency exam in Accounting and Statistics by July 1. The courses are offered online through My Educator
2. Strong computer skills
3. At least 2 years of full-time management work experience recommended (avg. 3.0 years)
4. Commitment to not be employed during the first year of the program
5. Resume
6. Applicants with degrees that have been awarded outside of the US must complete a foreign credential evaluation with IERF and request to have the official report sent electronically to BYU Graduate Studies (before the applicable program application deadline) in order to be considered eligible for admission. Please be aware that the IERF process can take up to a month to complete.

Deadline Notes

October 1 - Applications accepted for Fall
November 1 - Application review begins
December 1 - Round 1 application deadline
January 15 - Round 2 application deadline: **Recommended international application submission date**
March 1 - Round 3 application deadline; Final international application deadline
May 1 - Final domestic application deadline (based on room in the program)

Business Administration - Executive Program (MBA) [234064]

Application Deadline: May 1

Business Administration - Executive Option

The executive masters of business administration option is a rigorous program in general management for fully employed professionals. Designed for managers and professionals who have at least five years of full-time managerial work experience, it consists of courses similar to the full-time MBA program but is unique in reflecting the work and management experience of its students. The Executive MBA is a general degree and does not offer specialization in functional areas.

All Executive MBA classes are offered at the BYU Salt Lake Center in downtown Salt Lake City in a weekend format. Classes are held every other weekend on Friday from noon to 6:30 p.m. and on Saturday from 8 a.m. to 3 p.m.

Obtaining an MBA degree through the executive MBA option requires a year-round commitment for two years. Students spend one

residency week on campus at the beginning of each school year in a complex case analysis and other concentrated study. Executive MBA classes are not available to students outside the Executive MBA program.

Required Tests

GMAT or GRE

Additional Requirements

1. All MBA students are required to pass a basic preparation course and proficiency exam in accounting and statistics by July 1. The courses are offered online through My Educator
2. Strong computer skills
3. Minimum 5 years of full-time management work experience (avg. 10 years)
4. Resume
5. Two professional letters of recommendation
6. Applicants with degrees that have been awarded outside of the US must complete a foreign credential evaluation with IERF and request to have the official report sent electronically to BYU Graduate Studies (before the applicable program application deadline) in order to be considered eligible for admission. Please be aware that the IERF process can take up to a month to complete.

Deadline Notes

December 1 - 1st round
January 15 - 2nd round
March 1 - 3rd round
May 1 - Final

Advanced Brand Strategy [MBA-660]

BYU > Marriott School of Business > Master's of Business Administration (MBA) > Course

Strategic market analysis and development and implementation of a strategic marketing plan for a new product, new business, or an ongoing operation.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Advanced Corporate Finance [MBA-621]

BYU > Marriott School of Business > Master's of Business Administration (MBA) > Course

Analyzing the economic incentive and understanding the risks/benefits of transactions such as mergers/acquisitions, changing value drivers, leveraged buyouts, changing capital structure, international investing, tax-driven restructurings, leasing, recapitalizations, and industry restructurings.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Advanced Corporate Financial Reporting [MBA-524]

BYU > Marriott School of Business > Master's of Business Administration (MBA) > Course

Areas of financial reporting where managers have considerable discretion, including pensions, leases, equity securities, earnings, dilution, employee stock options, and deferred taxes. Dynamics between auditors, managers, and financial analysts.

Hours: 1.5 Credit, 1.5 Lecture, 0.0 Lab

Advanced Marketing Analytics A [MBA-656A]

BYU > Marriott School of Business > Master's of Business Administration (MBA) > Course

An immersive experience in marketing data and analytics. Students work on analytics projects for a variety of companies focusing on developing data products.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Advanced Marketing Analytics B [MBA-656B]

BYU > Marriott School of Business > Master's of Business Administration (MBA) > Course

An immersive experience in marketing data and analytics. Students work on analytics projects for a variety of companies focusing on developing data products.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Advanced Strategy and Consulting A [MBA-684A]

BYU > Marriott School of Business > Master's of Business Administration (MBA) > Course

Strategy consulting, working with client companies to scope engagements, perform work, deliver analysis and recommendations, and assist in initial implementation.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Advanced Strategy and Consulting B [MBA-684B]

BYU > Marriott School of Business > Master's of Business Administration (MBA) > Course

Strategy consulting, working with client companies to scope engagements, perform work, deliver analysis and recommendations, and assist in initial implementation.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Advanced Strategy and Consulting C [MBA-684C]

BYU > Marriott School of Business > Master's of Business Administration (MBA) > Course

Strategy consulting, working with client companies to scope engagements, perform work, deliver analysis and recommendations, and assist in initial implementation.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: MBA 684B.

Advanced Venture Capital/Private Equity Strategies, Part 1 [MBA-665A]

BYU > Marriott School of Business > Master's of Business Administration (MBA) > Course

Applied experience in venture capital and private equity, conducting due diligence on clients, industry, competition; observing and participating in deal structure; tracking progress of funded client companies.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Advanced Venture Capital/Private Equity Strategies, Part 2 [MBA-665B]

BYU > Marriott School of Business > Master's of Business Administration (MBA) > Course

Applied experience in venture capital and private equity, conducting due diligence on clients, industry, competition; observing and participating in deal structure; tracking progress of funded client companies.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Advertising and Promotion [MBA-556]

BYU > Marriott School of Business > Master's of Business Administration (MBA) > Course

Key issues facing marketing managers when promoting products and services. Cases, readings, and research on the elements of effective communication strategies and promotional programs.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Brand Management Strategy [MBA-657]

BYU > Marriott School of Business > Master's of Business Administration (MBA) > Course

Develop the fundamental skills required to successfully manage consumer brands, including brand strategy and development, P&L management, portfolio creation, AC Nielsen analysis, product innovation and competitive strategy.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Business Analytics [MBA-560]

BYU > Marriott School of Business > Master's of Business Administration (MBA) > Course

Skills business leaders need to make decisions based on data. Foundations of quantitative analysis necessary to understand the business analytics process. Applying steps in the analytics process including identifying and articulating the business problem, gathering appropriate data, determining the proper analysis procedure, and summarizing/reporting the resulting findings.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Business Ethics [MBA-604]

BYU > Marriott School of Business > Master's of Business Administration (MBA) > Course

Basic issues, concepts, and tools of management ethics; includes ethical theory, character ethics, and social responsibility, all taught in a gospel context.

Hours: 1.5 Credit, 1.5 Lecture, 0.0 Lab

Business Finance [MBA-520]

BYU > Marriott School of Business > Master's of Business Administration (MBA) > Course

Short-term financing of a business operation. Developing techniques for financial planning, such as analysis of ratios, profitability, and liquidity.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Business Plan Competition Management [MBA-590R]

BYU > Marriott School of Business > Master's of Business Administration (MBA) > Course

Directors of the BYU Business Plan Competition learn and apply skills in leadership, governance, financial management, mentoring, and VA/Angel networking. application and faculty approval required.

Hours: 0.5-3.0 Credit, ARR Lecture, 0.0 Lab

Business Strategy [MBA-580]

BYU > Marriott School of Business > Master's of Business Administration (MBA) > Course

Introduction to strategic planning; concepts, models, and analysis.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Business-to-Business Marketing [MBA-659]

BYU > Marriott School of Business > Master's of Business Administration (MBA) > Course

Examining the scope and challenges of business-to-business markets, including building and managing customer relationships and services, customer selection, B2B distribution channels, managing R&D and technical product development, new-product launch, positioning, and pricing.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Capital and Security Markets [MBA-624]

BYU > Marriott School of Business > Master's of Business Administration (MBA) > Course

Analyzing the instruments of capital markets and incentives/risks of major market participants. Understanding the structure and market acceptance of bank debt, short term debt alternatives, straight debt, equity linked debt, various forms of preferred equity, and international placements. Solving risk management problems using swap overlays, embedded options, and other financial structures.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Change Management [MBA-537]

BYU > Marriott School of Business > Master's of Business Administration (MBA) > Course

Theory and practice of change in organizations.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Compensation and Benefits [MBA-628]

BYU > Marriott School of Business > Master's of Business Administration (MBA) > Course

The use of total rewards--compensation and benefits--to help organizations gain and sustain a competitive advantage in a global environment. Designed to help new managers and HR professionals make important compensation and benefits decisions, and know how to do vital compensation and benefits activities.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Competitive Strategy [MBA-680]

BYU > Marriott School of Business > Master's of Business Administration (MBA) > Course

Advanced course in competitive strategy for dynamic markets. Exploring topics such as growth, competitor analysis, positioning, and real options. Employing frameworks such as rugged landscapes, Schumperterian competition, and evolutionary economics to develop strategic options.

Hours: 1.5 Credit, 1.5 Lecture, 0.0 Lab

Competitive Strategy and Analysis [MBA-581]

BYU > Marriott School of Business > Master's of Business Administration (MBA) > Course

The application of??various tools in micro-economic theory (demand, cost, production, oligopoly, game, etc.), strategic frameworks (strategic groups, portfolio analysis, diagnostic tools, etc.), and statistical analysis (regression, factor, cluster, etc.) to provide students with a broad exposure to the kinds of strategic analysis that yield key insights for managers engaged in the work of strategy. Applications fall into categories of competition, customers, costs, and capabilities.??Beyond the development of analytical skills, the course also aims to provide practice in delivering strategic insights to managers by assigning students to work on a project for a company of their choosing.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Consulting Field Study [MBA-590R]

BYU > Marriott School of Business > Master's of Business Administration (MBA) > Course

Working as a team with faculty and management in strategic consulting projects for local, national, and international business.

Hours: 0.5-3.0 Credit, ARR Lecture, 0.0 Lab

Consumer Behavior [MBA-655]

BYU > Marriott School of Business > Master's of Business Administration (MBA) > Course

Improving managerial decisions by gaining an in-depth understanding of consumers. Topics include transproduct consumer needs, perception, information processing, persuasion, decision-making, and post-consumption evaluation.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Corporate Financial Reporting [MBA-501]

BYU > Marriott School of Business > Master's of Business Administration (MBA) > Course

Introduction to concepts and issues of financial reporting with an emphasis on how financial statements reflect economic events.

Hours: 1.5 Credit, 1.5 Lecture, 0.0 Lab

Corporate Governance [MBA-623]

BYU > Marriott School of Business > Master's of Business Administration (MBA) > Course

How corporate boards are led, focusing especially on the role of the director, the rights of shareholders, the compensation of executives, and the challenge boards face in balancing the needs of shareholders, managers, and other stakeholders.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Corporate Social Innovation [MBA-688]

BYU > Marriott School of Business > Master's of Business Administration (MBA) > Course

Examining and applying models of social innovation unique to corporations: direct investment, partnerships with governments and/or NGOs, direct- or foundation-based philanthropy, and industry-or sector-level interventions, in both domestic and international contexts.

Hours: 1.5 Credit, 3.0 Lecture, 0.0 Lab

Creating New Ventures [MBA-671]

BYU > Marriott School of Business > Master's of Business Administration (MBA) > Course

Learning the critical skills to create a successful new venture by validating an initial idea and business model in the field.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: M B A core.

Creative Strategic Thinking [MBA-683]

BYU > Marriott School of Business > Master's of Business Administration (MBA) > Course

Understanding conditions under which creative ideas/strategies emerge; building skills for creative strategic thinking; generating valuable ideas for companies.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Curricular Practical Training [MBA-598R]

BYU > Marriott School of Business > Master's of Business Administration (MBA) > Course

Hands-on practical training for MBA international students to be taken after their first year of the MBA program.

Hours: 0.5 Credit, 0.0 Lecture, 0.0 Lab

Customer Relationship Management [MBA-619]

BYU > Marriott School of Business > Master's of Business Administration (MBA) > Course

Methods and principles for effective management of customer relationships and interactions. Analyzing customer-interactive processes. Facilitating customer roles in the supply chain pertaining to cost, quality, and workflow. Using customer service technology for strategic advantage.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Decision Analysis [MBA-605]

BYU > Marriott School of Business > Master's of Business Administration (MBA) > Course

Applying analytical decision-making tools to management situations using spreadsheet decision models based on concepts of risk, uncertainty, and multiple criteria.

Hours: 1.5 Credit, 1.5 Lecture, 0.0 Lab

Derivatives and Fixed Income [MBA-626]

BYU > Marriott School of Business > Master's of Business Administration (MBA) > Course

Valuing and using derivative and fixed-income securities. Key concepts include equilibrium pricing, arbitrary pricing, and financial engineering.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Entrepreneurial Marketing [MBA-672]

BYU > Marriott School of Business > Master's of Business Administration (MBA) > Course

Innovative Marketing tactics and strategies for launching new ventures. Topics include developing and analyzing competitive angles that make competitors irrelevant and best practices for marketing new products/services on a limited budget.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Entrepreneurial Strategy [MBA-669]

BYU > Marriott School of Business > Master's of Business Administration (MBA) > Course

Developing and applying strategies in emerging businesses, focusing on strategic business models, capital acquisition, and competitive differentiation in new businesses, especially e-businesses. Students consult directly with businesses.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Entrepreneurship Through Acquisition: Search Funds and Technology Licensing [MBA-677R]

BYU > Marriott School of Business > Master's of Business Administration (MBA) > Course

Evaluating industries, companies, and term sheets for acquisition targets involving search funds and technology licensing. Proven approach to lower-risk pursuit of entrepreneurship opportunities.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: First semester MBA curriculum.

Financial Markets [MBA-618]

BYU > Marriott School of Business > Master's of Business Administration (MBA) > Course

Learning how financial markets work. Understanding terminology of markets. Gaining exposure to market professionals and institutions. Developing skills in company analysis, portfolio management, and Excel spreadsheets. Preparing for careers in financial markets.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Financial Modeling A: Valuation [MBA-635]

BYU > Marriott School of Business > Master's of Business Administration (MBA) > Course

Use spreadsheets to value businesses and structure deals; master Excel, retrieve and interpret financial data; build discounted cash flow, market comparable, and precedent transaction valuation models.

Hours: 1.5 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: MBA 501 & MBA 520, or Acc 440 & Fin 410.

Financial Modeling B: Transactions [MBA-636]

BYU > Marriott School of Business > Master's of Business Administration (MBA) > Course

Use spreadsheets to structure financial deals including mergers and acquisitions, leverage buyouts, private equity, and venture capital deals.

Hours: 1.5 Credit, 3.0 Lecture, 0.0 Lab

Financial Statement Analysis [MBA-527]

BYU > Marriott School of Business > Master's of Business Administration (MBA) > Course

Analysis of financial statements and related disclosures with an emphasis on assessments of profitability, asset utilization, earnings quality, and credit risk.

Hours: 1.5 Credit, 1.5 Lecture, 0.0 Lab

Global Business Negotiations [MBA-661]

BYU > Marriott School of Business > Master's of Business Administration (MBA) > Course

Cross cultural/national negotiations, increasingly important in today's global marketplace, are unique-- beyond language and geographic distance. This course teaches a framework of how bargainer characteristics and situational factors influence negotiation processes, which impact negotiation outcomes.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Global Supply Chain Management Consulting 1 [MBA-637A]

BYU > Marriott School of Business > Master's of Business Administration (MBA) > Course

The emerging rules of a global marketplace and their influence on key supply chain activities and processes. Preparing students for supply chain leadership and for engaging in a Cougar global supply chain consulting experience.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Global Supply Chain Management Consulting 2 [MBA-637B]

BYU > Marriott School of Business > Master's of Business Administration (MBA) > Course

The emerging rules of a global marketplace and their influence on key supply chain activities and processes. Preparing students for supply chain leadership and for engaging in a Cougar global supply chain consulting experience.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Global Supply Chain Strategy [MBA-633]

BYU > Marriott School of Business > Master's of Business Administration (MBA) > Course

How companies win fiercely competitive battles for customer loyalty by bringing together the complementary competencies residing up and down the supply chain to create unique value in a rapidly changing global environment.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Global Treasury Management [MBA-521]

BYU > Marriott School of Business > Master's of Business Administration (MBA) > Course

Prepare students to work as treasurer or CFO by helping them understand banking relations, cash management, short-term investing and borrowing, liquidity management, and receivables and payables management in an era of electronic commerce.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Healthcare Industry Dynamics [MBA-588]

BYU > Marriott School of Business > Master's of Business Administration (MBA) > Course

A broad study of the many interconnected components of the healthcare industry, including medical technology, pharmaceuticals, hospital administration, healthcare policy, insurance, public health, etc. Introductory applications of various functional skills to healthcare (e.g., accounting, data analytics, ethics, finance, human resources, information systems, marketing, operations, organizational behavior, strategy, supply chain management, and other specializations).

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Human Resource Management Skills [MBA-546]

BYU > Marriott School of Business > Master's of Business Administration (MBA) > Course

Acquiring skills and competencies including selection, compensation, performance evaluation, training evaluation, organizational assessment, and research methodology.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Innovation and Entrepreneurship [MBA-670]

BYU > Marriott School of Business > Master's of Business Administration (MBA) > Course

Creating and capturing value through individual and organizational innovation; strategies to increase the flow of innovation and the probability of success.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Integrative Exercise [MBA-591R]

BYU > Marriott School of Business > Master's of Business Administration (MBA) > Course

Integrated applications of case analysis and presentation skills. Group work to analyze cases and formulate recommendations, followed by professional presentations to groups representing management.

Hours: 0.5-3.0 Credit, ARR Lecture, ARR Lab

International Finance [MBA-627]

BYU > Marriott School of Business > Master's of Business Administration (MBA) > Course

Impact that currency, tax and capital market variations between countries have on sourcing of funds, management of working capital, investment of funds, and protection of assets. Understanding the foreign exchange market.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

International Leadership and Strategy [MBA-645]

BYU > Marriott School of Business > Master's of Business Administration (MBA) > Course

Understanding national, organizational, and ethnic cultures and cultural frameworks used for business. Cross-country analysis; international human resource issues and working abroad; focus on the competencies and practices that characterize global leaders and how they can strategically manage people in a global setting.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

International Marketing [MBA-658]

BYU > Marriott School of Business > Master's of Business Administration (MBA) > Course

Institutions and techniques related to marketing goods and services in other countries: international dimensions of product, price, distribution channels, and promotion as they are adjusted to meet social, cultural, and political environments found in other countries.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Internet Marketing [MBA-554]

BYU > Marriott School of Business > Master's of Business Administration (MBA) > Course

Marketing strategy for business on the internet: marketing research, sales, and promotional concepts.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Introduction to Global Management [MBA-584]

BYU > Marriott School of Business > Master's of Business Administration (MBA) > Course

Global management frameworks such as national culture, the CAGE model of distances or differences (cultural, administrative, geographic and economic), a "flat" vs. "spiky" world, and applying such to functional areas of business (marketing, HR, finance, etc.).

Hours: 1.5 Credit, 2.0 Lecture, 0.0 Lab

Introduction to Marketing Analytics [MBA-653]

BYU > Marriott School of Business > Master's of Business Administration (MBA) > Course

Types of data and analytical techniques currently used in marketing. Students will be required to analyze a variety of datasets using software tools including Power BI, Azure Machine Learning Studio, and Sawtooth Software.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Investments [MBA-622]

BYU > Marriott School of Business > Master's of Business Administration (MBA) > Course

Quantitatively rigorous course on financial market investments, including risk/return, stock and bond valuation, portfolio diversification, performance measurement, and pricing of derivative securities. Geared towards institutional investment management for MBA and MAcc students, not personal finance.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Labor Relations and Employment Law [MBA-547]

BYU > Marriott School of Business > Master's of Business Administration (MBA) > Course

U.S./International labor/industrial relations. History, labor law, union organizing campaigns, contract negotiations, arbitration, union avoidance. Employment discrimination, work policies, and workplace safety and health.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Leadership [MBA-505]

BYU > Marriott School of Business > Master's of Business Administration (MBA) > Course

Develop leadership ability by identifying and building upon existing strengths. Students focus on maintaining positive professional relationships while motivating high performance of individuals, teams, and organizations. Topics include organizational culture and change, leader communication, and character.

Hours: 3.0 Credit, 2.5 Lecture, 0.5 Lab

Leadership 2: Strategies for Leading and Managing Organizations [MBA-640]

BYU > Marriott School of Business > Master's of Business Administration (MBA) > Course

Understanding and building individual leadership skills required for a global business environment.

Hours: 1.5 Credit, 1.5 Lecture, 0.0 Lab

Management and Information Technology [MBA-510]

BYU > Marriott School of Business > Master's of Business Administration (MBA) > Course

Management and control with information technology. Information flow, database design, and use applied to cost controls and managerial decision making.

Hours: 1.5 Credit, 1.5 Lecture, 0.0 Lab

Management Field Study [MBA-690R]

BYU > Marriott School of Business > Master's of Business Administration (MBA) > Course

Students complete consulting projects working with faculty and management to resolve business issues.

Hours: 1.0-3.0 Credit, ARR Lecture, 0.0 Lab

Management Seminar [MBA-593R]

BYU > Marriott School of Business > Master's of Business Administration (MBA) > Course

Invited guests speak on topics of general management interest ranging from ethics, industry problems and opportunities, and government policies to relevant current events.

Hours: 0.5-3.0 Credit, ARR Lecture, ARR Lab

Managerial Accounting 1 [MBA-502]

BYU > Marriott School of Business > Master's of Business Administration (MBA) > Course

Objectives and procedures of cost accounting. Topics include job costing, joint product costing, cost behavior analysis, standard costs, cost allocation problems, and cost data use in management.

Hours: 1.5 Credit, 1.5 Lecture, 0.0 Lab

Managerial Finance [MBA-528]

BYU > Marriott School of Business > Master's of Business Administration (MBA) > Course

Topics include working capital management, financial forecasting, asset valuation, capital budgeting, capital structure, cost of capital, investing, international finance, firm valuation, etc. discussed in a framework for both corporations and personal life.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Managing New Ventures [MBA-674]

BYU > Marriott School of Business > Master's of Business Administration (MBA) > Course

Learn skills and tools to start and manage an early-stage company: building a founding team and management team, raising capital, determining legal structures and addressing other legal issues, hiring and growing the company, working with boards, collaborating with supplier & channel partners, establishing critical systems.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: M B A core.

Marketing Management [MBA-550]

BYU > Marriott School of Business > Master's of Business Administration (MBA) > Course

Development of analytical marketing tools and techniques; their utilization in case analysis and decision making in marketing management.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Micro/Macro Organizational Behavior [MBA-542]

BYU > Marriott School of Business > Master's of Business Administration (MBA) > Course

Learn and use multiple theoretical frames to understand and evaluate organizations in order to diagnose strengths and areas for improvement and to develop a course of action. Content, concepts, and theories related to both the micro (individual level) and macro (organizational level) aspects of organizational behavior.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Miller New Venture Competition Leadership [MBA-590R]

BYU > Marriott School of Business > Master's of Business Administration (MBA) > Course

Working as a team with faculty and management in strategic consulting projects for local, national, and international business.

Hours: 0.5-3.0 Credit, ARR Lecture, 0.0 Lab

Money, Financial Markets, and Forecasting [MBA-609]

BYU > Marriott School of Business > Master's of Business Administration (MBA) > Course

Applying macroeconomics and statistics to understand key institutions, anticipate business conditions, predict interest rates, and forecast market indicators.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

New Venture Launchpad [MBA-676R]

BYU > Marriott School of Business > Master's of Business Administration (MBA) > Course

Mentored support and coaching of launch of an actual venture. Guidance on solution validation, prototype development and testing, product/service launch, and business fundamentals (marketing, finance, operations, systems, etc.). At a minimum, students must be committed to launching a specific idea. Businesses already operating and generating revenue also welcome.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Operations Management [MBA-530]

BYU > Marriott School of Business > Master's of Business Administration (MBA) > Course

Examining issues and tools in production and operations management. Specific tools for forecasting, planning, inventory control, and project management presented and developed.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Optimization [MBA-606]

BYU > Marriott School of Business > Master's of Business Administration (MBA) > Course

Applying analytical decision-making tools to management situations, emphasizing spreadsheet decision models that optimize a key variable subject to constraints.

Hours: 1.5 Credit, 1.5 Lecture, 0.0 Lab

Oral Communication for Business Leaders [MBA-543]

BYU > Marriott School of Business > Master's of Business Administration (MBA) > Course

Weekly professional seminar on presentation skills, interaction in social settings, and resolving workplace conflict. Highly experiential, skills-based course.

Hours: 1.5 Credit, 1.5 Lecture, 0.0 Lab

Personal Financial Planning [MBA-620]

BYU > Marriott School of Business > Master's of Business Administration (MBA) > Course

Financial decision making for households in planning your financial future: vision and goals, budgeting, tax, cash management, debt reduction, insurance, investment planning and portfolio management, retirement and estate planning. Business and family interests affecting personal finances.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Power, Influence, and Negotiation [MBA-631]

BYU > Marriott School of Business > Master's of Business Administration (MBA) > Course

Analysis of power and influence processes; develop observational skill; roles of networks, social capital, and influence in organizations; employing power and influence to negotiate effectively.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Pricing Strategies [MBA-553]

BYU > Marriott School of Business > Master's of Business Administration (MBA) > Course

Introduction to frameworks relevant for making pricing decisions. An integrative approach to pricing strategies combining strategic, economic, marketing, and psychological considerations.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Product Development: Market to Concept [MBA-639]

BYU > Marriott School of Business > Master's of Business Administration (MBA) > Course

Strategies, processes, tools, and methods in product development, focusing on initial stages of market and competitive assessment to concept development.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Graduate standing as a student in business administration, mechanical engineering, or manufacturing, or instructor's consent.

Professional Seminar in Organizational Behavior [MBA-549R]

BYU > Marriott School of Business > Master's of Business Administration (MBA) > Course

Business professionals, including HR leaders, facilitate discussions about cutting-edge challenges in Human Resource Management and organizational consulting. Topics may include, but are not limited to: talent acquisition, change management, HR's role in mergers and acquisitions, global HR issues, performance management, union/labor relations, leadership development, and aligning HR with business strategies.

Hours: 0.5-3.0 Credit, ARR Lecture, ARR Lab

Quality Management [MBA-634]

BYU > Marriott School of Business > Master's of Business Administration (MBA) > Course

Concepts of quality management; six sigma, strategic issues, philosophies, and tools used to implement and control quality. Includes material on six sigma and other continuous improvement tools.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Razor's Edge: Intentional Principles for Leading and Thriving [MBA-595]

BYU > Marriott School of Business > Master's of Business Administration (MBA) > Course

Preparing students to intentionally thrive on three levels: 1) personally, 2) in their family, and 3) as business leaders. Review of the literature around the myths of happiness, and exploration of motivation (self-determination theory) and positive psychology (positive emotion, engagement, relationships, meaning and achievement). Implications of technology, nature, essentialism, GRIT, and physical and spiritual well-being. A 2-day learning adventure provides an experiential context to live and experience the principles studied in a real world context. Each student creates a plan to thrive.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Real Estate Analysis: Finance and Investment [MBA-686]

BYU > Marriott School of Business > Master's of Business Administration (MBA) > Course

Applying principles and techniques of property investments, including determining value, financing arrangements, and marketing and management problems.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Real Estate Development [MBA-691]

BYU > Marriott School of Business > Master's of Business Administration (MBA) > Course

Applying financial and real estate principles to practical property investments. Insights into the real estate profession, emphasizing development.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Research Methods in Marketing [MBA-650]

BYU > Marriott School of Business > Master's of Business Administration (MBA) > Course

Interpreting and using the results of market research, including evaluating the quality of the research studies as part of an overall assessment of whether a study???s result should be relied upon. Becoming familiar with advanced marketing research tools in terms of their purposes and how to use their results to improve managerial decision-making. Focus on using marketing research as opposed to conducting such studies.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Risk Management [MBA-617]

BYU > Marriott School of Business > Master's of Business Administration (MBA) > Course

Management of risk exposures in a business setting. Identifying, measuring, and dealing with both traditional insurable risks and financial risks.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Silver Fund, Part 1 [MBA-629A]

BYU > Marriott School of Business > Master's of Business Administration (MBA) > Course

Team of 10-12 MBA students manage a real-dollar stock portfolio donated by the Harold Silver Family, including security analysis, trading, and performance attribution.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Finance faculty consent.

Silver Fund, Part 2 [MBA-629B]

BYU > Marriott School of Business > Master's of Business Administration (MBA) > Course

Team of 10-12 MBA students manage a real-dollar stock portfolio donated by the Harold Silver Family, including security analysis, trading, and performance attribution.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Finance faculty consent.

Social Innovation and Social Entrepreneurship [MBA-692]

BYU > Marriott School of Business > Master's of Business Administration (MBA) > Course

Issues facing social innovators, those that work full-time for them, and those who support them; understanding complex systems of for-profit, nonprofit, and hybrid social ventures; outlining involvement in social innovation as part of a lifetime of meaningful service.

Hours: 1.5 Credit, 1.5 Lecture, 0.0 Lab

Special Topics in Management [MBA-693R]

BYU > Marriott School of Business > Master's of Business Administration (MBA) > Course

Subject to be arranged with instructor. Approval must be obtained from the MBA Office.

Hours: 0.5-3.0 Credit, Arr Lecture, 0.0 Lab

Spreadsheet Automation and Modeling [MBA-614]

BYU > Marriott School of Business > Master's of Business Administration (MBA) > Course

Programming in Excel VBA; automating common tasks; retrieving data from web servers; building optimization models and user forms.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Admission to a Marriott School graduate program.

Spreadsheets for Business Analysis [MBA-615]

BYU > Marriott School of Business > Master's of Business Administration (MBA) > Course

Use of spreadsheets to support business analysis and decision making. Includes sensitivity analysis, pivot tables, introductions to databases and macros, charting, and similar topics.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Strategic Client Acquisition and Retention [MBA-654]

BYU > Marriott School of Business > Master's of Business Administration (MBA) > Course

Strengthening the art and science of persuasion and influencing in selling and interpersonal leadership skills to drive prospect decision-making towards mutually beneficial outcomes. Leading salespeople and buyers to build a long-term portfolio of loyal, strategic partners.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Strategic Decision Making [MBA-685]

BYU > Marriott School of Business > Master's of Business Administration (MBA) > Course

Economic, philosophic (logical), psychological, political, and history-based models of decision making and judgment; improving students' decision making processes.

Hours: 1.5 Credit, 1.5 Lecture, 0.0 Lab

Strategic Human Resource Management [MBA-548]

BYU > Marriott School of Business > Master's of Business Administration (MBA) > Course

HRM from manager's perspective. Employment relationship, recruiting/selection, employment law, performance management, and HRM in emerging companies. Managing human assets within firm's strategy, industry, and stakeholder environment.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Strategic Issues in Operations [MBA-638]

BYU > Marriott School of Business > Master's of Business Administration (MBA) > Course

Interface of strategy and manufacturing. Topics include: capacity and facilities management, work force management, quality management, technology management, vertical integration, manufacturing infrastructure, manufacturing interface with other functions, and incorporating manufacturing in corporate strategy.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Strategic Logistics Management [MBA-529]

BYU > Marriott School of Business > Master's of Business Administration (MBA) > Course

Applying and integrating logistics-related topics, including materials management, physical distribution, inventory management, warehousing, logistics network design, customer service, packaging, and materials handling.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Strategic Simulation [MBA-687]

BYU > Marriott School of Business > Master's of Business Administration (MBA) > Course

Participating as teams in an on-line strategy experience and practicing skills in strategy formulation, group decision making, and strategy execution

Hours: 1.5 Credit, 1.5 Lecture, 0.0 Lab

Strategic Sourcing [MBA-532]

BYU > Marriott School of Business > Master's of Business Administration (MBA) > Course

Upstream supply chain activities of supplier selection, management, and development. Topics will include negotiations, costing, product development, and commodity analysis.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Strategic Sourcing and Logistics Management [MBA-531]

BYU > Marriott School of Business > Master's of Business Administration (MBA) > Course

Applying and integrating sourcing and logistics-related topics, including: supplier selection, management, and development; cost analysis; total cost of ownership; contract management; category analysis; materials management; physical distribution; inventory management; warehousing; logistics network design; customer service; packaging; and materials handling.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Strategy Implementation [MBA-681]

BYU > Marriott School of Business > Master's of Business Administration (MBA) > Course

Creating alignment among organizational elements of the firm; managing strategic change; and the role of personal and business values in strategy.

Hours: 1.5 Credit, 1.5 Lecture, 0.0 Lab

Strategy Lessons from History [MBA-682]

BYU > Marriott School of Business > Master's of Business Administration (MBA) > Course

Historical figures (such as Queen Elizabeth I, Winston Churchill, Brigham Young, and Ernest Shackleton) and their strategic leadership decisions in significant situations, highlighting key management concepts previously studied.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Talent Management [MBA-625]

BYU > Marriott School of Business > Master's of Business Administration (MBA) > Course

Principles, practical methods, and best company practices to attract, develop, and retain an organization's most important resource--its talented people. Discussion and application of important talent management processes, including but not limited to talent review sessions, competency modeling, talent acquisition, leadership development, succession planning, high-potential programs, performance management, and talent retention. Completion of an individual development plan (IDP).

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Taxation for Decision Makers [MBA-602]

BYU > Marriott School of Business > Master's of Business Administration (MBA) > Course

Analysis of business and individual transactions for their tax factors. Basic structure of the law and implications for both personal and corporate income tax.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Team Management and Consultation [MBA-544]

BYU > Marriott School of Business > Master's of Business Administration (MBA) > Course

Investigate the dynamics that make teams successful, analyze pitfalls of working in teams, and explore recommendations to improve team effectiveness. Identify and resolve common team challenges, both as team leaders and consultants to an external team.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Understanding Organizations [MBA-549R]

BYU > Marriott School of Business > Master's of Business Administration (MBA) > Course

Perspectives of psychology and sociology on the organization, organizational identity, organizational effectiveness, and organizational change. Critical thinking and application to cases and personal experience.

Hours: 0.5-3.0 Credit, ARR Lecture, ARR Lab

Venture Capital/Private Equity Fundamentals [MBA-664]

BYU > Marriott School of Business > Master's of Business Administration (MBA) > Course

Academic and applied experience opportunities focusing on venture capital and private equity industries, capital acquisition, due diligence, management, governance issues, and best-practice decision making.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Work and Family [MBA-549R]

BYU > Marriott School of Business > Master's of Business Administration (MBA) > Course

Research and practical application related to successfully harmonizing one's family and work lives.

Hours: 0.5-3.0 Credit, ARR Lecture, ARR Lab

Hill, Brian Jack

BYU > Marriott School of Business > Master's of Business Administration (MBA) > Faculty

Professor
Business Administration
PhD, Clemson University, 1994
Research Interest: Family Recreation; Marital Recreation; Tourism

Widmer, Mark Alan

Professor
Business Administration
PhD, University of Utah, 1993
Research Interest: Therapeutic Recreation; Assessment; Adolescence

Zabriskie, Ramon B

Professor
Business Administration
PhD, Indiana University, 2000
Research Interest: Therapeutic Recreation; Family Leisure

Chemical Engineering

Address

Chemical Engineering
330 EB, Provo, UT 84602-4100
(801) 422-2586
cheme@byu.edu

Programs

Chemical Engineering [392160]
Chemical Engineering [392198]

The Department of Chemical Engineering at BYU has been offering graduate degrees since 1960 and has become a center of cutting-edge research and teaching. External funding for departmental research is over $2 million per year, with 14 faculty members and approximately 40 graduate students working to solve technical, scientific, and engineering problems to meet global and societal needs. Faculty and students share their innovations and research in leading scientific publications, attend international research conferences, and collaborate with other researchers across the world. As discussed below, the department is home to a number of specialized research centers where multiple faculty members and students collaborate on long-term projects with lasting impact. The department is known for strong research programs in sustainable energy, catalysis, thermodynamics, molecular modeling, process control, electrochemical engineering, and bioengineering.

The Department of Chemical Engineering offers two degrees: Chemical Engineering-MS and Chemical Engineering-PhD. The department also offers an integrated master's program. The typical length of study for students who begin with a BS degree in chemical engineering is two years for the MS degree and four and a half years for the PhD degree.

Chair: Randy S. Lewis Graduate Coordinator: William G. Pitt

Resources & Opportunity

All the faculty members actively participate in research endeavors, and a number have gained international recognition for their work.

Some of the major facilities in the Department of Chemical Engineering are:

The Advanced Combustion Engineering Research Center (ACERC) is internationally recognized as a leading center for interdisciplinary energy research. Initially founded by the National Science Foundation (NSF) as an engineering research center, ACERC now represents a collaborative effort of faculty with similar research interests and funding from both industrial and government sources. Students and faculty associated with the center pursue experimentation, analysis, computer modeling, and design of combustion systems.

DIPPR Thermophysical Properties Laboratory. Development and management of the DIPPR 801 thermophysical property database is the major pursuit of the DIPPR laboratory. This database, perhaps the best in the world of its kind, is sponsored by the Design Institute for Physical Property Data (DIPPR) of the American Institute of Chemical Engineers (AIChE). Research activities consist of collecting and evaluating literature data on pure component properties and developing correlation and prediction techniques. Experimental projects also compose a significant emphasis of the laboratory.

Catalysis Laboratory. The lab has a thirty-two-year history of productive research in heterogeneous catalysis. Highly interdisciplinary in nature, this research applies principles of kinetics, chemistry, materials science, surface science, and chemical engineering to the understanding of catalyst properties and catalytic reactions.

Financial Assistance

For all graduate degree programs, support is available from the department and the university in the form of teaching assistantships and competitive fellowships, and from faculty members in the form of research assistantships. Nearly every graduate student receives financial support.

Chemical Engineering (PhD) [392160]

A PhD in chemical engineering indicates that the graduate is capable of and qualified to conduct independent and original research in the chemical industries and other related fields. Employees with PhD degrees are in high demand by industry, with starting salaries that are considerably higher than for BS or MS graduates. Also, a PhD degree is generally required to pursue an academic career. The doctoral program is designed to prepare the student for a lifetime of intellectual inquiry and research and is therefore more rigorous and demanding than the MS program. Students who are dedicated, diligent, and thoughtful and who can work independently are most suited for a PhD in chemical engineering at BYU.

Requirements for Degree.

Credit hours: minimum 54 semester hours, at least 36 of which must be course work beyond the baccalaureate degree, plus 18 hours of dissertation (Ch En 799R). All courses taken to satisfy degree requirements must be approved by the student's advisory committee. *Candidates without a master's degree:* 36 hours. There must be at least 6 hours of the 36 in advanced mathematics, statistics, or computer science and a minimum 18 hours of dissertation (Ch En 799R). At least 3 hours of the 36 must be in 600- or 700-level lecture courses beyond the required Ch En 601 course. *Candidates with a master's degree:* with committee approval, up to 20 hours of previous graduate work, may apply toward the doctorate, but at least 36 hours must be taken at BYU (including 18 dissertation hours). Courses taken in the master's program may apply toward the required 6 hours of advanced mathematics, statistics, or computer science.

Required courses: Ch En 531, 533, 535, 601, 791R (every semester), 6 hours of advanced mathematics, statistics, or computer science (or engineering courses that cover equivalent content), and 17 hours of elective courses.

Foundation areas: a 3-hour course in each of the following three areas must be completed if this has not been done previously while a BS or MS student: partial differential equations, numerical analysis, and statistics. Graduate-level courses taken to fulfill this requirement also count as part of the above 36-hour overall requirement and 6-hour math-related requirement.

Undergraduate hours: up to 6 hours of 300- and 400-level interdisciplinary courses from an approved list may be applied toward the 36 hours of course work for interdisciplinary research areas, such as biomedical engineering and statistical mechanics. These approved courses appear in the Chemical Engineering Graduate Handbook.

Non-Ch En background: students without a previous chemical engineering degree are required to complete the following undergraduate courses in addition to the above requirements: Ch En 273, 373, 374, 376, 386; Math 302, 303; Chem 351. In addition, students without adequate exposure to the topics in Ch En 451, 476, and 477 are required to complete 2 hours of Ch En 493R during Spring Term to address these topics. Specific classes in this list may be waived by the department based on the student's prior coursework. This requirement is based on two principles: (1) Each student should have a sufficient foundational preparation in the chemical engineering discipline prior to taking the graduate core classes (Ch En 531, 533 and 535), and (2) each graduating student should be competent in a basic set of undergraduate chemical engineering skills as part of their preparation for professional practice.

English proficiency: international students whose English language skills are judged by the department to be inadequate for completion of the degree may be required to take one or two ESL courses as specified in the admission letter.

Residency requirement: residency is required for the major part of the work toward the doctoral dissertation. This work must be completed under the specific direction of a graduate faculty member while the student is in residence at BYU (at least two consecutive full-time semesters). "In residence" is defined as (1) being registered for credit as a graduate student and (2) living and conducting research in the general vicinity of the university, where the student has ready access to research facilities and consultation with the faculty. Further, all work applying toward any doctoral dissertation must be completely open for university review and publication. Any exceptions to the above must be supported by written approval from the department and college and obtained in advance of any work being performed.
Prospectus: each student must write, defend orally, and obtain approval for a prospectus on his or her proposed dissertation topic.
Periodic reviews: The department evaluates each student's progress twice a year. Continuance as a candidate requires satisfactory ratings in these reviews.
Examinations: a comprehensive qualifying examination on graduate engineering skills must be taken and passed at a high level as described in the Chemical Engineering Graduate Student Handbook. The examination is offered once a year.
Dissertation: a written dissertation on a significant scientific or engineering problem must be completed and defended orally to the satisfaction of the department.
Cumulative GPA: 3.0 or above in all PhD degree classes.

Required Tests

GRE

Additional Requirements

1. BS or equivalent in chemical engineering from an ABET school
2. 3.0 GPA in upper-division chemical engineering courses
3. 3.3 GPA in all courses

Chemical Engineering (MS) [392198]

An MS in chemical engineering prepares the student for a wide variety of employment experiences in industry ranging from plant operation to plant design. Employment opportunities in research may also be available to qualified MS graduates. Typically starting salaries are slightly higher than those for BS graduates. The MS degree is designed to give the student a solid foundation in chemical engineering principles and a strong research experience. For students desiring design experience rather than research experience, the MS degree with design emphasis is available. See the Chemical Engineering Graduate Student Handbook for details: https://chemicalengineering.byu.edu/Grad_Handbook_2017.pdf

Requirements for Degree.

Credit hours: minimum 30 hours including 6 thesis hours (Ch En 699R). No more than 9 hours of 300–499 level course work will apply toward the master's degree. All courses taken to satisfy degree requirements must be approved by the student's advisory committee.
Required courses: Ch En 531, 533, 535, 601, 691R (every semester) and electives (12 or more hours). For requirements of special programs, see the Chemical Engineering Graduate Student Handbook (see web address above).
Non-Ch En background: students without a previous chemical engineering degree are required to complete the following undergraduate courses in addition to the above requirements: Ch En 273, 373, 374, 376, 386; Math 302, 303; Chem 351. In addition, students without adequate exposure to the topics in Ch En 451, 476, and 477 are required to complete 2 hours of Ch En 493R during Spring Term to address these topics. Specific classes in this list may be waived by the department based on the student's prior coursework. This requirement is based on two principles: (1) each student should have a sufficient foundational preparation in the chemical engineering discipline prior to taking the graduate core classes (Ch En 531, 533, and 535), and (2) each graduating student should be competent in a basic set of undergraduate chemical engineering skills as part of their preparation for professional practice.
English proficiency: international students whose English language skills are judged by the department to be inadequate for completion of the degree may be required to take one or two ESL courses as specified in the admission letter.
Residency requirement: residency is required for the major part of the work toward the master of science thesis. This work must be completed under the specific direction of a graduate faculty member while the student is in residence at BYU (at least two consecutive full-time semesters). “In residence” is defined as (1) being registered for credit as a graduate student and (2) living and conducting research in the general vicinity of the university, where the student has ready access to research facilities and consultation with the faculty. Further, all work applying toward any master’s project or thesis must be completely open for university review and publication. Any exceptions to the above must be supported by written approval from the department and college and obtained in advance of any work being performed.
Prospectus: each student must submit and obtain approval for a written prospectus on his or her proposed thesis topic.

Periodic reviews: The department evaluates each student's progress twice a year. Continuance as a candidate requires satisfactory ratings in these reviews.
Examinations: a comprehensive qualifying examination on graduate engineering skills must be taken and passed as described in the Chemical Engineering Graduate Student Handbook. The examination is offered once a year.
Thesis: a written thesis on a significant engineering problem must be completed and defended orally to the satisfaction of the department.
Cumulative GPA: 3.0 or above in all MS degree classes.

Required Tests

GRE

Additional Requirements

1. BS or equivalent in chemical engineering from an ABET school
2. 3.0 GPA in upper-division chemical engineering courses
3. 3.3 GPA in all courses

Advanced Thermodynamics [CH EN-674]

BYU > Ira A. Fulton College of Engineering and Technology > Chemical Engineering > Course

Advanced topics of thermodynamics, including electrolytes, phase equilibrium modeling, nonequilibrium thermodynamics, and calorimetry.

Hours: 2.0 Credit, 2.0 Lecture, 0.0 Lab
Prerequisites: ChEn 531 or equivalent.

Biochemical Engineering [CH EN-519]

BYU > Ira A. Fulton College of Engineering and Technology > Chemical Engineering > Course

Applying chemical engineering principles to biochemical systems.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: or concurrent enrollment.

Biomedical Engineering Principles [CH EN-518]

BYU > Ira A. Fulton College of Engineering and Technology > Chemical Engineering > Course

Application of chemical engineering principles to model physiologic systems and to solve medical problems.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: or equivalent.

Coal Combustion [CH EN-733]

BYU > Ira A. Fulton College of Engineering and Technology > Chemical Engineering > Course

Fundamentals of coal combustion and gasification processes, including particle mechanics, devolatilization, heterogeneous oxidation, radiative heat transfer, and combustion of coal in practical flames.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Instructor's consent.

Combustion Modeling [CH EN-641]

BYU > Ira A. Fulton College of Engineering and Technology > Chemical Engineering > Course

Theory of combustion systems and quantitative procedures for computing performance of combustion chambers. Applications include turbulent combustion of gases, sprays, and particulates.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Combustion Processes [CH EN-633]

BYU > Ira A. Fulton College of Engineering and Technology > Chemical Engineering > Course

Fundamentals of transport processes in reacting flow systems with specific applications of various combustion processes.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: ChEn 533 or equivalent.

Computer Design Methods [CH EN-541]

BYU > Ira A. Fulton College of Engineering and Technology > Chemical Engineering > Course

Computer-aided design and numerical methods of chemical engineering processes.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: or equivalent.

Directed Graduate Studies [CH EN-601]

BYU > Ira A. Fulton College of Engineering and Technology > Chemical Engineering > Course

Guided preparation for department's comprehensive exams and for formulation of research prospectus.

Hours: 2.0 Credit, 2.0 Lecture, 0.0 Lab

Doctoral Dissertation [CH EN-799R]

BYU > Ira A. Fulton College of Engineering and Technology > Chemical Engineering > Course

Hours: 0.5-9.0 Credit, ARR Lecture, ARR Lab

Industrial Catalytic Processes [CH EN-528]

BYU > Ira A. Fulton College of Engineering and Technology > Chemical Engineering > Course

Fundamentals of catalytic chemistry and materials; applications to important industrial catalytic processes. Includes catalyst materials and preparation, catalyst characterization, fixed-bed reactor design, and catalyst deactivation.

Hours: 2.0 Credit, 2.0 Lecture, 0.0 Lab

Kinetics and Catalysis [CH EN-535]

BYU > Ira A. Fulton College of Engineering and Technology > Chemical Engineering > Course

Theories and principles of chemical kinetics, including heterogeneous catalysis and reactor design.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Master's Project [CH EN-698R]

BYU > Ira A. Fulton College of Engineering and Technology > Chemical Engineering > Course

Hours: 0.5-6.0 Credit, ARR Lecture, ARR Lab

Master's Thesis [CH EN-699R]

BYU > Ira A. Fulton College of Engineering and Technology > Chemical Engineering > Course

Hours: 0.5-9.0 Credit, ARR Lecture, ARR Lab

Molecular Modeling [CH EN-513]

BYU > Ira A. Fulton College of Engineering and Technology > Chemical Engineering > Course

Fundamentals of quantum mechanics, statistical mechanics, and molecular-level modeling. Basics of computational chemistry and simulations using deterministic and stochastic methods (molecular dynamics and Monte Carlo) to calculate thermodynamic and transport properties of fluids and fluid mixtures.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: or concurrent enrollment.

Polymer Science and Engineering [CH EN-578]

BYU > Ira A. Fulton College of Engineering and Technology > Chemical Engineering > Course

Foundation science and theory of polymer chemistry and physics and their implications in engineering applications. Topics include polymerization chemistry, structure-property relationships, polymer physics, and transport properties.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: or equivalent.

Principles of Reservoir Engineering [CH EN-610]

BYU > Ira A. Fulton College of Engineering and Technology > Chemical Engineering > Course

Reservoir and hydrocarbon classification; fluid flow; primary oil and gas recovery mechanisms; enhanced oil recovery.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Ch En 373 or equivalent.

Selected Topics in Chemical Engineering [CH EN-793R]

BYU > Ira A. Fulton College of Engineering and Technology > Chemical Engineering > Course

Topics vary according to student-faculty interests.

Hours: 0.5-3.0 Credit, ARR Lecture, ARR Lab

Seminar for Doctoral Students [CH EN-791R]

BYU > Ira A. Fulton College of Engineering and Technology > Chemical Engineering > Course

Hours: 0.5 Credit, 1.0 Lecture, 0.0 Lab

Seminar for Master's Students [CH EN-691R]

BYU > Ira A. Fulton College of Engineering and Technology > Chemical Engineering > Course

Technical presentations by graduate students, faculty members, and guests.

Hours: 0.5 Credit, 1.0 Lecture, 0.0 Lab

Special Topics - Intermediate [CH EN-593R]

BYU > Ira A. Fulton College of Engineering and Technology > Chemical Engineering > Course

Special topics for advanced undergraduate students and for graduate students.

Hours: 1.0-3.0 Credit, ARR Lecture, ARR Lab
Prerequisites: Instructor's consent.

Special Topics--Graduates [CH EN-693R]

BYU > Ira A. Fulton College of Engineering and Technology > Chemical Engineering > Course

Hours: 0.5-6.0 Credit, ARR Lecture, ARR Lab

Statistics for Physics-Based Systems [CH EN-687]

BYU > Ira A. Fulton College of Engineering and Technology > Chemical Engineering > Course

Using linear and nonlinear models to design experiments, regress coefficients, and infer confidence intervals for both the regressed coefficients and the predictions for systems with errors in one or several variables.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Thermodynamics of Multicomponent Systems [CH EN-531]

BYU > Ira A. Fulton College of Engineering and Technology > Chemical Engineering > Course

Fundamental concepts and applications in first and second laws, equilibrium and stability, phase equilibrium, and homogeneous and heterogeneous chemical equilibrium.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: or concurrent enrollment.

Transport Phenomena [CH EN-533]

BYU > Ira A. Fulton College of Engineering and Technology > Chemical Engineering > Course

Transport mechanisms and coefficients and fundamental field equations for momentum, heat, and mass transport, with application to system design.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: ChEn 476 or concurrent enrollment.

Argyle, Morris Dee

BYU > Ira A. Fulton College of Engineering and Technology > Chemical Engineering > Faculty

Associate Professor
Chemical Engineering
PhD, University of California, Berkeley, 2003
Research Interest: Catalysis

Baxter, Larry Lin

BYU > Ira A. Fulton College of Engineering and Technology > Chemical Engineering > Faculty

Professor
Chemical Engineering
PhD, Brigham Young University, 1989
Research Interest: Sustainable Energy

Bundy, Bradley C

BYU > Ira A. Fulton College of Engineering and Technology > Chemical Engineering > Faculty

Associate Professor
Chemical Engineering
PhD, Stanford University, 2009
Research Interest: Bioengineering

Cook, Alonzo D

Associate Professor
Chemical Engineering
PhD, Massachusetts Institute of Technology, 1996
Research Interest: Tissue Engineering

Fletcher, Thomas H

Professor
Chemical Engineering
PhD, Brigham Young University, 1983
Research Interest: Coal Combustion; Gasification; Gas Turbine Combustion

Fry, Andrew R

Associate Professor
Chemical Engineering

Harb, John N

Professor
Chemical Engineering
PhD, University of Illinois, 1988
Research Interest: Electrochemical Engineering

Hedengren, John D

Associate Professor
Chemical Engineering
PhD, University of Texas, Austin, 2005
Research Interest: Process Control and Optimization

Knotts, Thomas Allen

Associate Professor
Chemical Engineering
PhD, University of Wisconsin, Madison, 2006
Research Interest: Molecular Modeling

Lewis, Randy S

Professor
Chemical Engineering
PhD, Massachusetts Institute of Technology, 1995
Research Interest: Bioengineering

Lignell, David O

Associate Professor
Chemical Engineering
PhD, University of Utah, 2008
Research Interest: Reacting Flow Simulation

Memmott, Matthew J

Assistant Professor
Chemical Engineering
PhD, Massachusetts Institute of Technology, 2009
Research Interest: Advanced Nuclear Reactor Design; Nuclear Safety; System Modeling.

Nickerson, Stella Day

Assistant Professor
Chemical Engineering

Pitt, William G

Professor
Chemical Engineering
PhD, University of Wisconsin, Madison, 1987
Research Interest: Ultrasonic Delivery of Pharmaceuticals; Biomedical Polymers

Tree, Douglas R

Assistant Professor
Chemical Engineering
PhD, University of Minnesota, 2014

Wheeler, Dean Richard

Professor
Chemical Engineering
PhD, University of California, Berkeley, 2002
Research Interest: Electrochemical Engineering; Molecular Modeling

Wilding, Wade V

Professor
Chemical Engineering
PhD, Rice University, 1985
Research Interest: Applied Thermodynamics

Chemistry and Biochemistry

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Programs

- Biochemistry [692863]
- Biochemistry [692864]
- Chemistry [692872]
- Chemistry [692873]

Chemistry and biochemistry are fundamental to our understanding of the physical and biological world. The principles and applications of chemistry and biochemistry are diverse, interesting, and challenging. The graduate programs in the Department of Chemistry and Biochemistry are designed to develop well-educated, independent scientists who will contribute in diverse circumstances where chemical/biochemical knowledge and skills are needed.

Approximately thirty faculty are the foundation of our excellent graduate program. The department occupies the 190,000-square-foot Benson Science Building, which provides comfortable, modern laboratories. Extensive instrumentation is available and constantly being replaced or upgraded to support cutting-edge research.

Approximately 100 graduate students provide an essential and dynamic atmosphere for research progress and stimulating discussion. Our postdoctoral students and visiting scientists add depth and diversity to the intellectual atmosphere. Moreover, a strong population of undergraduate research assistants also brings significant strength and enthusiasm to research projects.

Additional information about faculty members and their research interests is available on the department website: http://www.chem.byu.edu/

The Department of Chemistry and Biochemistry offers four degrees: Chemistry-MS, Biochemistry-MS, Chemistry-PhD, and Biochemistry-PhD.

Areas of emphasis include: Analytical Chemistry, Biochemistry, (Molecular Biology), Inorganic/Materials Chemistry, Organic and Biomolecular Chemistry, and Physical Chemistry.

The vast majority of our graduate students are in the PhD program, and they complete their work in approximately five and one-half years. MS program students complete their work in about two and one-half years.

Chair: David Dearden Graduate Coordinator: Kenneth A. Christensen

Resources & Opportunity

Simmons Center for Cancer Research. The objective of the BYU Simmons Center for Cancer Research is to make significant scientific contributions toward the control and cure of cancer. Intense investigations of oncogenes and their relation to the development of cancer represents a major activity within the center. Faculty and students from the Department of Chemistry and Biochemistry and from the College of Life Sciences contribute their expertise.

Detailed information about the department, our facilities, and programs is available on the department's web site at www.chem.byu.edu, *The cancer research center's site is at https://cancerresearch.byu.edu/*. We encourage you to explore these sites and to contact the department office for answers to any questions that you may have (see the address information below).

Financial Assistance

All students in the department's graduate programs who request financial aid are granted tuition for all required graduate courses and an annual assistantship of at least $25,000. These awards are granted on a continuing basis as long as satisfactory progress is being made toward the degree. This financial assistance allows students to be involved full-time in their graduate program, which includes research and course work and also include teaching and/or research assistant assignments.

Some highly-qualified applicants are offered additional funding through the HIDRA, college fellowships, or Nicholes Maw awards. Other types of financial aid such as internships, scholarships, and student loans may also be available to students who qualify. More information may be obtained from the department office and from the Financial Aid Office.

The department relies on its graduate students to fill many assignments in laboratory and recitation instruction. Unless excused by the faculty, a graduate student would typically be a teaching assistant for at least two semesters for twenty hours a week during residency towards the degree.

Biochemistry (MS) [692863]

BYU > College of Physical and Mathematical Sciences > Chemistry and Biochemistry > Program

Application Deadline: January 5

The Biochemistry MS degree provides specialized study on an advanced level. The degree includes about one year of course work beyond the BS degree and a thesis based upon a significant research project. The research will be in areas of biochemical and molecular biological emphasis, such as host pathogen interactions, bioprobes and sensors, signal transduction, or protein structure and function. The added preparation in theory and practice allows the MS biochemist to assume responsibility and supervision beyond that normally given a BS or BA biochemist. The MS degree is adequate preparation for some industry and junior college teaching positions. It is generally not a prerequisite for a PhD degree program.

Requirements for Degree.

Credit hours (30): 24 hours of course work and research plus 6 thesis hours (Chem 699R).
Required courses: Chem 694 and 594R (multiple semesters); 601 and other courses as specified by committee.
Semi-annual progress review, examinations, and presentations.
Thesis.
Final oral examination consisting of two parts: (A) public presentation of original research described in thesis; (B) comprehensive examination on course work, research, and thesis.

Required Tests

GRE general test is required, GRE subject test in Biochemistry or Chemistry is recommended.

Additional Requirements

Baccalaureate degree or equivalent preparation in biochemistry
Resume

Fellowship consideration deadline: January 5

Biochemistry (PhD) [692864]

BYU > College of Physical and Mathematical Sciences > Chemistry and Biochemistry > Program

Application Deadline: January 5

The biochemistry PhD degree prepares independent scientists to perform and to supervise creative research in biochemistry and molecular biology. The PhD degree requires some course work, but the emphasis is primarily on original, creative research leading to a dissertation and to quality publications in scientific journals. The PhD biochemist is prepared for a wide range of career opportunities that involve independent thinking and supervisory responsibilities in industry, government, or academia.

Requirements for Degree.

Credit hours (54): 36 hours of course work and research plus 18 dissertation hours (Chem 699R). (With departmental approval, some credit from an MS degree may be applied toward this requirement.)
Required courses: Chem 692R and 594R (multiple semesters), 601, 689R, 694, and other courses as specified by committee.
Semi-annual progress review, examinations, and presentations.
Dissertation.
Final oral examination consisting of two parts: (A) public presentation of original research described in dissertation; (B) comprehensive examination on course work, research and dissertation.

Required Tests

GRE general test is required, GRE subject test in Biochemistry or Chemistry is recommended.

Additional Requirements

Baccalaureate degree or equivalent preparation in biochemistry
Resume

Fellowship consideration deadline: January 5

Chemistry (MS) [692872]

Application Deadline: January 5

The chemistry MS degree provides specialized study and research on an advanced level. It includes about one year of course work beyond the bachelor's degree and the development of a significant research project presented in a thesis. The MS student will select one of the four chemistry areas of emphasis, but there is sufficient flexibility in course and committee selection that a program of study can acquire a significant interdisciplinary character. The added preparation in theory and practice allows the chemical scientist to assume responsibility and supervision beyond that normally given with bachelor's level study. The MS degree is adequate preparation for some industry and junior college teaching positions. The master's degree is generally not necessary as a preparatory step for the PhD degree.

Requirements for Degree.

Credit hours (30): 24 hours of course work and research plus 6 thesis hours (Chem 699R).
Required courses: Chem 692R and 594R (multiple semesters), 601, 694, and other courses as required by the area of emphasis and as specified by committee.
Semi-annual progress review, examinations and presentations.
Thesis.
Final oral examination consisting of two parts: (A) public presentation of original research described in thesis; (B) comprehensive examination on course work, research, and thesis.

Required Tests

GRE general test is required, GRE subject test in chemistry or biochemistry is recommended.

Additional Requirements

Baccalaureate degree or equivalent preparation in chemistry
Resume

Fellowship consideration deadline: January 5

Chemistry (PhD) [692873]

Application Deadline: January 5

The chemistry PhD degree prepares a scientist to contribute on the creative front of chemical science. The PhD student will select one of the four chemistry areas of emphasis (i.e., analytical, inorganic, organic, or physical chemistry), but there is sufficient flexibility in course and committee selection that a program of study can acquire a significant interdisciplinary character. Some courses on advanced topics related to the student's professional goals will be taken, but the PhD degree is primarily a research experience that is to be reported in a dissertation and in the scientific literature. The PhD chemist is prepared for a wide range of career choices and will be expected to act with considerable independence and enjoy major responsibilities. A new PhD chemist may seek employment in industry, government agencies, or the university or college setting.

Requirements for Degree.

Credit hours (54): 36 hours of course work and research plus 18 dissertation hours (Chem 699R). (With departmental approval, some credit from an MS degree may be applied toward this requirement.)
Required courses: Chem 692R and 594R (multiple semesters), 601, 694 and other courses as required by the area of emphasis and as specified by committee.
Semi-annual progress review, examinations and presentations.
Comprehensive qualifying exam: written and/or oral.
Dissertation.

Final oral examination consisting of two parts: (A) public presentation of original research described in dissertation; (B) comprehensive examination on course work, research and dissertation.

Required Tests

GRE general test is required, GRE subject test in chemistry or biochemistry is recommended.

Additional Requirements

Baccalaureate degree or equivalent preparation in chemistry
Resume

Fellowship consideration deadline: January 5

(Chem-C S-Geol-Math-MthEd-Phscs-Stat) Business Career Essentials in Science and Math [CHEM-500]

BYU > College of Physical and Mathematical Sciences > Chemistry and Biochemistry > Course

Introduction for science, math, and statistics majors to careers in industry. Project planning, oral and written business presentations, business accounting, and technology readiness.

Hours: 1.5 Credit, 1.5 Lecture, 0.0 Lab

Advanced Biochemical Methodology 1 [CHEM-581]

BYU > College of Physical and Mathematical Sciences > Chemistry and Biochemistry > Course

Analytical and structural determination methods used in biochemical research, including mass spectrometry-based proteomics, immunotechniques, atomic force and electron microscopy, NMR and X-ray diffraction.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Advanced Biochemical Methodology 2 [CHEM-583]

BYU > College of Physical and Mathematical Sciences > Chemistry and Biochemistry > Course

Maintenance and expression of genetic information, the role of nucleic acids in biology at the chemical and structural level, and methods to study and control nucleic acid function as a means of solving biological problems.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Advanced Biochemistry Methods 1 [CHEM-584]

BYU > College of Physical and Mathematical Sciences > Chemistry and Biochemistry > Course

Introduction to current biochemical research methods, techniques, and instrumentation directed toward the isolation and characterization of DNA, RNA, and proteins including, DNA cloning, protein expression, enzyme kinetics, and nucleic acid and protein ligand interactions.

Hours: 3.0 Credit, 1.0 Lecture, 6.0 Lab

Advanced Biochemistry Methods 2 [CHEM-586]

BYU > College of Physical and Mathematical Sciences > Chemistry and Biochemistry > Course

Continued development of expertise in and the application of biochemical research methods, techniques, and instrumentation building on the skills and experience gained in Chem 584 including, the design and carrying out of directed group research projects.

Hours: 3.0 Credit, 1.0 Lecture, 6.0 Lab

Advanced Inorganic Laboratory [CHEM-518]

BYU > College of Physical and Mathematical Sciences > Chemistry and Biochemistry > Course

Synthesis, characterization, and properties of materials; coordination and organometallic compounds.

Hours: 2.0 Credit, 0.0 Lecture, 6.0 Lab
Prerequisites: Chem 201 or 601 or concurrent enrollment.

Advanced Organic Chemistry [CHEM-552]

BYU > College of Physical and Mathematical Sciences > Chemistry and Biochemistry > Course

Physical aspects of organic chemistry; mechanisms, reaction intermediates, bonding, stereochemical and stereoelectronic effects, molecular orbital theory, Lewis acidity and basicity.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Chem 462 and 463 (or Chem 468).

Advanced Organic Chemistry [CHEM-553]

BYU > College of Physical and Mathematical Sciences > Chemistry and Biochemistry > Course

Synthetic aspects of organic chemistry; oxidations, reductions, concerted reactions, stereoselectivity, synthetic equivalents, protecting groups. Examples of natural product total synthesis.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Advanced Techniques in Nuclear Magnetic Resonance [CHEM-655]

BYU > College of Physical and Mathematical Sciences > Chemistry and Biochemistry > Course

Introduction to techniques such as DEPT, COSY, HETCOR, ROESY, INADEQUATE, HMQC, HSQC, and HMBC.

Hours: 1.0 Credit, 1.0 Lecture, 3.0 Lab
Prerequisites: Chem 455 or 555 or equivalent.

Advanced Topics in Biochemistry [CHEM-689R]

BYU > College of Physical and Mathematical Sciences > Chemistry and Biochemistry > Course

The following topics are rotated: cellular signal transduction, clinical chemistry, biochemical immunology, bioinorganic chemistry, genetic modeling of human disease, molecular biology of cancer, regulatory RNA, proteomics, and structural biochemistry.

Hours: 0.5-3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Chem 583 or equivalent.

Biochemical Immunology [CHEM-689R]

BYU > College of Physical and Mathematical Sciences > Chemistry and Biochemistry > Course

Hours: 0.5-3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Chem 583 or equivalent.

Bioinorganic Chemistry [CHEM-689R]

BYU > College of Physical and Mathematical Sciences > Chemistry and Biochemistry > Course

Hours: 0.5-3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Chem 583 or equivalent.

Bioorganic Chemistry [CHEM-659R]

BYU > College of Physical and Mathematical Sciences > Chemistry and Biochemistry > Course

Hours: 0.5-3.0 Credit, ARR Lecture, 0.0 Lab
Prerequisites: Chem 552 or equivalent.

Cellular Signal Transduction [CHEM-689R]

BYU > College of Physical and Mathematical Sciences > Chemistry and Biochemistry > Course

Hours: 0.5-3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Chem 583 or equivalent.

Chemical Thermodynamics [CHEM-561]

BYU > College of Physical and Mathematical Sciences > Chemistry and Biochemistry > Course

Development of the principles of chemical thermodynamics, including laws, pure materials, mixtures, equilibria, and elementary statistical mechanics.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Chemistry of the Transition Elements [CHEM-619R]

BYU > College of Physical and Mathematical Sciences > Chemistry and Biochemistry > Course

Hours: 0.5-3.0 Credit, ARR Lecture, 0.0 Lab

Current Biochemistry Literature [CHEM-688R]

BYU > College of Physical and Mathematical Sciences > Chemistry and Biochemistry > Course

Designed to increase the depth of student proficiency in current biochemistry literature and improve their formal presentation skills.

Hours: 0.5 Credit, 1.0 Lecture, 0.0 Lab

Current Topics in Chemistry and Biochemistry [CHEM-692R]

BYU > College of Physical and Mathematical Sciences > Chemistry and Biochemistry > Course

Provides doctoral students an opportunity to explore current literature and give presentations, both on the literature and their individual research.

Hours: 0.5 Credit, 1.0 Lecture, 0.0 Lab

Fundamentals of Spectroscopy [CHEM-569]

BYU > College of Physical and Mathematical Sciences > Chemistry and Biochemistry > Course

Atomic and molecular spectroscopy and application of group theoretical concepts. Types of experiments and interpretation of data.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

General Seminar [CHEM-594R]

BYU > College of Physical and Mathematical Sciences > Chemistry and Biochemistry > Course

Research topics presented by faculty and visiting scientists.

Hours: 0.5 Credit, 1.0 Lecture, 0.0 Lab

Genetic Modeling of Human Disease [CHEM-689R]

BYU > College of Physical and Mathematical Sciences > Chemistry and Biochemistry > Course

Hours: 0.5-3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Chem 583 or equivalent.

Graduate Research [CHEM-697R]

BYU > College of Physical and Mathematical Sciences > Chemistry and Biochemistry > Course

Hours: 0.5-6.0 Credit, ARR Lecture, ARR Lab
Prerequisites: Chem 601 or concurrent enrollment.

Graduate Thesis/Dissertation [CHEM-699R]

BYU > College of Physical and Mathematical Sciences > Chemistry and Biochemistry > Course

Hours: 0.5-9.0 Credit, ARR Lecture, ARR Lab

Inorganic Chemistry [CHEM-514]

BYU > College of Physical and Mathematical Sciences > Chemistry and Biochemistry > Course

In-depth treatment of theoretical concepts in inorganic chemistry and solid state, organmetallic, and bioinorganic chemistry.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Instrumental Analysis Laboratory [CHEM-523]

BYU > College of Physical and Mathematical Sciences > Chemistry and Biochemistry > Course

Continuation of Chem 521. Laboratory experience with modern analytical instrumentation.

Hours: 2.0 Credit, 0.0 Lecture, 6.0 Lab
Prerequisites: Chem 201 or 601 or concurrent enrollment.

Instrumental Analysis Lecture [CHEM-521]

BYU > College of Physical and Mathematical Sciences > Chemistry and Biochemistry > Course

Modern instrumental methods and basic principles of instrumentation.

Hours: 2.0 Credit, 2.0 Lecture, 0.0 Lab

Introduction to Quantum Chemistry [CHEM-565]

BYU > College of Physical and Mathematical Sciences > Chemistry and Biochemistry > Course

Introduction to physical and mathematical aspects of quantum theory, emphasizing application of the Schrodinger wave equation to chemical systems.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Mass Spectrometry [CHEM-729R]

BYU > College of Physical and Mathematical Sciences > Chemistry and Biochemistry > Course

Hours: 0.5-3.0 Credit, 3.0 Lecture, 0.0 Lab

Mass Spectrometry [CHEM-629R]

BYU > College of Physical and Mathematical Sciences > Chemistry and Biochemistry > Course

Hours: 2.0 Credit, 2.0 Lecture, 0.0 Lab
Prerequisites: Chem 521 or equivalent.

Materials Chemistry [CHEM-719R]

BYU > College of Physical and Mathematical Sciences > Chemistry and Biochemistry > Course

Hours: 1.0-3.0 Credit, 3.0 Lecture, 0.0 Lab

Microfabrication/Nanotechnology [CHEM-729R]

BYU > College of Physical and Mathematical Sciences > Chemistry and Biochemistry > Course

Hours: 0.5-3.0 Credit, 3.0 Lecture, 0.0 Lab

Natural Products Chemistry [CHEM-659R]

BYU > College of Physical and Mathematical Sciences > Chemistry and Biochemistry > Course

Hours: 0.5-3.0 Credit, ARR Lecture, 0.0 Lab
Prerequisites: Chem 552 or equivalent.

Organic Spectroscopic Identification [CHEM-555]

BYU > College of Physical and Mathematical Sciences > Chemistry and Biochemistry > Course

Theory and practice of spectrometric methods of identifying organic compounds, including infrared, ultraviolet nuclear magnetic resonance, and mass spectrometries.

Hours: 2.0 Credit, 2.0 Lecture, 0.0 Lab

Organometallic Chemistry [CHEM-659R]

BYU > College of Physical and Mathematical Sciences > Chemistry and Biochemistry > Course

Hours: 0.5-3.0 Credit, ARR Lecture, 0.0 Lab
Prerequisites: Chem 552 or equivalent.

Polymer and Materials Chemistry [CHEM-571]

BYU > College of Physical and Mathematical Sciences > Chemistry and Biochemistry > Course

Survey of synthetic and biopolymers, modern materials, and their chemistry, including synthesis, chemical and physical characterization, and applications.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Chem 352 or Chem 351M; Chem 462 or Chem 468.

Proteomics [CHEM-689R]

BYU > College of Physical and Mathematical Sciences > Chemistry and Biochemistry > Course

Hours: 0.5-3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Chem 583 or equivalent.

Quantum Chemistry [CHEM-669R]

BYU > College of Physical and Mathematical Sciences > Chemistry and Biochemistry > Course

Includes time dependent quantum mechanics and computational chemistry.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Reaction Kinetics [CHEM-563]

BYU > College of Physical and Mathematical Sciences > Chemistry and Biochemistry > Course

Theoretical aspects of chemical kinetics in the gas phase and in solution. Rates and mechanisms in solution, rapid reactions, and other topics.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Regulatory RNA [CHEM-689R]

BYU > College of Physical and Mathematical Sciences > Chemistry and Biochemistry > Course

Hours: 0.5-3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Chem 583 or equivalent.

Safe Chemical Practices [CHEM-601]

BYU > College of Physical and Mathematical Sciences > Chemistry and Biochemistry > Course

University and department safety policies. Chemical hazards, fire safety, and biosafety, including laws.

Hours: 0.5 Credit, 0.5 Lecture, 0.0 Lab

Scientific Writing and Professional Ethics [CHEM-694]

BYU > College of Physical and Mathematical Sciences > Chemistry and Biochemistry > Course

Professional standards. Manuscript preparation and attendance at seminars by faculty and visiting scientists.

Hours: 1.0 Credit, 1.0 Lecture, 0.0 Lab

Selected Topics in Analytical Chemistry [CHEM-729R]

BYU > College of Physical and Mathematical Sciences > Chemistry and Biochemistry > Course

Subjects that may be offered are: atomic spectroscopy, laser spectroscopy, mass spectrometry, microfabrication/nanotechnology, and surface chemistry and analysis.

Hours: 0.5-3.0 Credit, 3.0 Lecture, 0.0 Lab

Selected Topics in Inorganic Chemistry [CHEM-719R]

BYU > College of Physical and Mathematical Sciences > Chemistry and Biochemistry > Course

Subjects that may be offered: materials chemistry.

Hours: 0.5-3.0 Credit, 3.0 Lecture, 0.0 Lab

Selected Topics in Physical Chemistry [CHEM-769R]

BYU > College of Physical and Mathematical Sciences > Chemistry and Biochemistry > Course

Subjects that may be offered include: advanced group theory, advanced techniques in magnetic resonance, calorimetry, molecular structure and spectroscopy, solid-state chemistry, statistical mechanics.

Hours: 0.5-3.0 Credit, 3.0 Lecture, 0.0 Lab

Separation Method of Analysis [CHEM-629R]

BYU > College of Physical and Mathematical Sciences > Chemistry and Biochemistry > Course

Hours: 2.0 Credit, 2.0 Lecture, 0.0 Lab
Prerequisites: Chem 521 or equivalent.

Special Topics in Chemistry [CHEM-596R]

BYU > College of Physical and Mathematical Sciences > Chemistry and Biochemistry > Course

Hours: 0.5-3.0 Credit, ARR Lecture, 0.0 Lab

Spectroscopic Methods of Analysis [CHEM-629R]

BYU > College of Physical and Mathematical Sciences > Chemistry and Biochemistry > Course

Hours: 2.0 Credit, 2.0 Lecture, 0.0 Lab
Prerequisites: Chem 521 or equivalent.

Statistical Mechanics [CHEM-567]

BYU > College of Physical and Mathematical Sciences > Chemistry and Biochemistry > Course

Introduction to classical and quantum statistical mechanics, including Boltzmann, Fermi-Dirac, and Bose-Einstein statistics. Applications of statistical thermodynamics to gases, liquids, and solids.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Structural Biochemistry [CHEM-689R]

BYU > College of Physical and Mathematical Sciences > Chemistry and Biochemistry > Course

Hours: 0.5-3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Chem 583 or equivalent.

Student Seminars in Analytical Chemistry [CHEM-628R]

BYU > College of Physical and Mathematical Sciences > Chemistry and Biochemistry > Course

Exposure to and experience in presenting current research and literature reviews in analytical chemistry to peers and faculty.

Hours: 0.5 Credit, 1.0 Lecture, 0.0 Lab

Surface Chemistry and Analysis [CHEM-729R]

BYU > College of Physical and Mathematical Sciences > Chemistry and Biochemistry > Course

Hours: 0.5-3.0 Credit, 3.0 Lecture, 0.0 Lab

Andersen, Joshua

Assistant Professor
Chemistry and Biochemistry
PhD, University of Utah, 2006
Research Interest: Biochemistry

Andrus, Merritt Brooks

Professor
Chemistry and Biochemistry
PhD, University of Utah, 1991
Research Interest: Organic Chemistry

Asplund, Matthew C

Associate Professor
Chemistry and Biochemistry
PhD, University of California, Berkeley, 1998
Research Interest: Physical Chemistry

Austin, Daniel E

Professor
Chemistry and Biochemistry
PhD, California Institute of Technology, 2003
Research Interest: Analytical Physical Chemistry

Burt, Scott R

Associate Teaching Professor
Chemistry and Biochemistry
PhD, University of California, Berkeley, 2008
Research Interest: NMR Facility Manager

Castle, Steven L

Professor
Chemistry and Biochemistry
PhD, Scripps Research Institute, 2000
Research Interest: Organic Chemistry

Christensen, Kenneth A

Associate Professor
Chemistry and Biochemistry
PhD, University of Michigan, 1997
Research Interest: Biochemistry

Dearden, David V

Professor
Chemistry and Biochemistry
PhD, California Institute of Technology, 1989
Research Interest: Analytical/Physical Chemistry

Ess, Daniel Halsell

Associate Professor
Chemistry and Biochemistry
PhD, University of California, Los Angeles, 2007
Research Interest: Organic Chemistry

Goates, Steven Rex

Professor
Chemistry and Biochemistry
PhD, University of Michigan, 1981
Research Interest: Analytical Chemistry

Graves, Steven William

Professor
Chemistry and Biochemistry
PhD, Yale University, 1978
Research Interest: Biochemistry

Hansen, Jaron C

Professor
Chemistry and Biochemistry
PhD, Purdue University, 2002
Research Interest: Analytical Chemistry

Harrison, Roger G

Professor
Chemistry and Biochemistry
PhD, University of Utah, 1993
Research Interest: Inorganic/Materials Chemistry

Johnson, Jeremy Andrew

Assistant Professor
Chemistry and Biochemistry
PhD, Massachusetts Institute of Technology, 2011
Research Interest: Physical Chemistry

Linford, Matthew Richard

Professor
Chemistry and Biochemistry
PhD, Stanford University, 1996
Research Interest: Analytical/Materials Chemistry

Michaelis, David John

Assistant Professor
Chemistry and Biochemistry
PhD, University of Wisconsin-Madison, 2009
Research Interest: Organic Chemistry

Patterson, James E

Associate Professor
Chemistry and Biochemistry
PhD, University of Illinois at Urbana-Champaign, 2004
Research Interest: Physical Chemistry

Peterson, Matt A

Associate Professor
Chemistry and Biochemistry
PhD, University of Arizona, 1992
Research Interest: Organic Chemistry

Price, John Calvin

Assistant Professor
Chemistry and Biochemistry
PhD, Pennsylvania State University, 2005
Research Interest: Biochemistry

Price, Joshua L

Associate Professor
Chemistry and Biochemistry
PhD, University of Wisconsin, Madison, 2008
Research Interest: Organic Chemistry

Savage, Paul Bennett

Professor
Chemistry and Biochemistry
PhD, University of Wisconsin, 1993
Research Interest: Organic Chemistry

Sevy, Eric T

BYU > College of Physical and Mathematical Sciences > Chemistry and Biochemistry > Faculty

Associate Professor
Chemistry and Biochemistry
PhD, Columbia University, 1999
Research Interest: Physical Chemistry

Stowers, Kara J

BYU > College of Physical and Mathematical Sciences > Chemistry and Biochemistry > Faculty

Assistant Professor
Chemistry and Biochemistry
PhD, University of Michigan, 2012
Research Interest: Inorganic/Organic

Watt, Richard Kent

BYU > College of Physical and Mathematical Sciences > Chemistry and Biochemistry > Faculty

Associate Professor
Chemistry and Biochemistry
PhD, University of Wisconsin, Madison, 1998
Research Interest: Inorganic/Biochemistry

Willardson, Barry M

BYU > College of Physical and Mathematical Sciences > Chemistry and Biochemistry > Faculty

Professor
Chemistry and Biochemistry
PhD, Purdue University, 1990
Research Interest: Biochemistry

Woodfield, Brian F

BYU > College of Physical and Mathematical Sciences > Chemistry and Biochemistry > Faculty

Professor
Chemistry and Biochemistry
PhD, University of California, Berkeley, 1994
Research Interest: Physical Chemistry

Woolley, Adam T

BYU > College of Physical and Mathematical Sciences > Chemistry and Biochemistry > Faculty

Professor
Chemistry and Biochemistry
PhD, University of California, Berkeley, 1997
Research Interest: Analytical/Materials Chemistry

Civil and Environmental Engineering

BYU > Ira A. Fulton College of Engineering and Technology > Department

Address

Civil and Environmental Engineering

430 EB, Provo, UT 84602-4081
(801) 422-2811
civil@byu.edu

Programs

Civil Engineering [392869]
Civil Engineering [392860]

Two degrees are offered through the Department of Civil and Environmental Engineering: Civil Engineering MS and Civil Engineering PhD.

The Department of Civil and Environmental Engineering admits approximately fifty students each year into its programs.

Chair: Norman L. Jones
Graduate Coordinator: Gus P. Williams
Associate Chair: E. James Nelson

Resources & Opportunity

For information on resources and opportunities, please visit http://ceen.et.byu.edu.

Financial Assistance

Departmental Scholarships. Master's or PhD candidates are eligible for scholarships each year. Applications may be obtained in January on the department Web site; the awards are given in mid-May for the next academic year. Selection is based on need and on scholastic merit. These scholarships may be received in addition to any assistantships or privately endowed awards unless the total financial aid package exceeds the scholarship limit stipulated by the university.

Research Assistantships. Faculty may have funds from both off-campus and on-campus sources to support research assistants. These awards support students at the current pay rate for up to 28 hours per week depending on eligibility.

Teaching Assistantships. All graduate students are eligible to be TAs. The assistantships range from 10-20 hours per week and consist of teaching labs and grading courses.

Civil Engineering (MS) [392869]

The MS degree builds on the foundation of skills, breadth, and depth of the undergraduate education to achieve greater competency. The MS program brings students to the state-of-the-art in one or more specialty areas enabling them with the skills necessary to handle problems at the cutting edge of the profession.

There are two MS options: Thesis and Project.

The intent of a thesis is to advance the state of the art, while the intent of a project is to apply the state of the art. The results of a thesis should be publishable as a journal or conference article, while the results of a project may or may not be publishable. Students completing a thesis receive 6 credit hours for their effort, while students completing a project receive 3 credit hours for their effort. Work on a thesis is more likely to be funded than work on a project. Both a thesis and a project are reviewed by a graduate committee comprised of three faculty members. A thesis is presented to the faculty committee, while a project is usually presented in graduate seminar. Expectations regarding the quality of written and oral presentation are the same for both a thesis and a project.

Requirements for Degree.

Credit hours: **Thesis program:** 31 minimum approved hours including 6 thesis hours and 1 hour of Graduate Seminar. **Project program:** 31 minimum approved hours including 3 project hours and 1 hour of Graduate Seminar.
Program of Study: the graduate program of study must be submitted during the first semester of graduate study.
Evaluations: evaluation of the student's graduate program progress by his/her department advisor is required at least twice each academic year.
Residency requirements: residency is required for the major part of the work. This work must be completed under the specific direction of a graduate faculty member while the student is in residence at BYU. "In residence" is defined as (1) being registered for credit as a graduate student and (2) living and conducting research in the general vicinity of the university, where the student has ready access to research facilities and consultation with the faculty. Further, all work must be completely open for university review and publication. Any exceptions to the above must be supported by written approval from the department and college and obtained in advance of any work being performed.

Prospectus: Students must submit a written prospectus on their proposed research topic during their first semester of graduate seminar.
Examinations: students must complete an oral defense of thesis or oral presentation of project.
Thesis or Project.
Cumulative 3.0 GPA or above in all program of study courses.
For a more detailed description of the graduate program requirements, see: http://ceen.et.byu.edu and http://graduatestudies.byu.edu.

Required Tests

GRE, TOEFL (score of 580 paper-based, or 85 iBT -- (22 speaking and 21 in all other categories)

Additional Requirements

Resume

Civil Engineering (PhD) [392860]

The PhD degree is awarded to candidates who have made a significant contribution to knowledge in a particular specialization of civil and environmental engineering and complete a dissertation. Electronic submission of the dissertation is required. Adequate course work is necessary to provide a foundation of expertise for quality research.

Requirements for Degree.

Credit hours
Candidates with a master's degree: minimum 55 approved semester hours.
These hours include:
At least 36 hours must be graduate-level courses (up to 18 hours of 500+ level courses can be transferred from the master's degree if approved by the graduate committee)
A minimum 18 hours dissertation
Candidates without a master's degree: minimum 55 approved semester hours
These hours include:
At least 36 hours must be graduate-level courses
A minimum 18 hours of dissertation

NOTE: All PhD candidates must have 1 hour of Graduate Seminar which are included in the minimum hours.

Students with no advanced mathematics, statistics, or science in their baccalaureate degree may be required to take additional courses in these areas.
Program of study: the graduate program of study must be submitted during the first year of doctoral study
Evaluations: evaluation of the student's graduate program progress by his/her department advisor is required at least twice each academic year.
Residency requirements: residency is required for the major part of the work. This work must be completed under the specific direction of a graduate faculty member while the student is in residence at BYU. "In residence" is defined as (1) being registered for credit as a graduate student and (2) living and conducting research in the general vicinity of the university, where the student has ready access to research facilities and consultation with the faculty. Further, all work must be completely open for university review and publication. Any exceptions to the above must be supported by written approval from the department and college and obtained in advance of any work being performed. In addition, a doctoral student must register for a minimum of 6 hours in two consecutive semesters.
Comprehensive qualifying examination: students must take and pass a written comprehensive qualifying examination based on graduate course work. After passing this examination, the student is accepted to candidacy for the doctoral degree. The examination is offered when the candidate completes two semesters of coursework and must be taken at least one year before completion of the degree.
Prospectus: students must submit and successfully defend a written prospectus on their proposed dissertation research topic at least one year before completion of the degree.
Dissertation.
Oral defense of dissertation.

For a more detailed description of the graduate program requirements, see: http://ceen.et.byu.edu and http://graduatestudies.byu.edu

Required Tests

GRE, TOEFL (score of 580 paper-based, or 85 iBT -- (22 speaking and 21 in all other categories)

Additional Requirements

Resume

(CE En-Me En) Aircraft Structures [CE EN-523]

BYU > Ira A. Fulton College of Engineering and Technology > Civil and Environmental Engineering > Course

Requirements, objectives, loads, materials, and tools for design of airframe structures; static behavior of thin-wall structures; durability and damage tolerance; certification and testing. Airframe component team design project.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: CE En 304 or Me En 250. CE En 321 or Me En 372.

(CE En-Me En) Composite Structures [CE EN-602]

BYU > Ira A. Fulton College of Engineering and Technology > Civil and Environmental Engineering > Course

Design and analysis of advanced composite structures; deflections, buckling, and vibration of thin plates and sandwich plates; design guidelines; design examples; project.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

(CE En-Me En) Computer Structural Analysis and Optimization [CE EN-504]

BYU > Ira A. Fulton College of Engineering and Technology > Civil and Environmental Engineering > Course

Matrix stiffness method for 1D, 2D, and 3D skeletal structure classes. Implementing the matrix stiffness method as a computer program. Nonlinear second-order structural analysis. Structural optimization techniques including stress-ratio method, gradient-based methods, and genetic algorithms.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: or equivalent; linear algebra.

(CE En-Me En) Computer-Aided Engineering Software Development [CE EN-570]

BYU > Ira A. Fulton College of Engineering and Technology > Civil and Environmental Engineering > Course

Programming methods for the development of engineering software. Data structures, architecture, libraries, and graphical user interfaces, with applications to CAD systems.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Me En 373 or C programming.

(CE En-Me En) Continuum and Solid Mechanics [CE EN-604]

BYU > Ira A. Fulton College of Engineering and Technology > Civil and Environmental Engineering > Course

Derivation of partial differential equations of continuum mechanics. Closed-form solution of classical problems in elasticity. Theory of beams, plates, and axisymmetric shells with closed-form solutions. Large displacement strain tensors, stress tensors, equilibrium equations, beam theory, and plate theory. Constitutive theory including nonlinear elasticity, viscoelasticity, plasticity, and hyperelasticity.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

(CE En-Me En) Design and Materials Applications [CE EN-500]

BYU > Ira A. Fulton College of Engineering and Technology > Civil and Environmental Engineering > Course

Applied and residual stress; materials selection; static, impact, and fatigue strength; fatigue damage; surface treatments; elastic deflection and stability--all as applied to mechanical design.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: or equivalent.

(CE En-Me En) Linear Finite Element Methods [CE EN-507]

BYU > Ira A. Fulton College of Engineering and Technology > Civil and Environmental Engineering > Course

Linear static finite element analysis of elastic solids; problem formulation, finite element discretization, and equation solving; stability, interpolation theory, and error estimates. Introduction to underlying continuum mechanics principles. Isogeometric analysis as a generalization of classical finite element analysis; basic principles of analysis-suitable computational geometry.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

(CE En-Me En) Nonlinear Finite Element Methods [CE EN-607]

BYU > Ira A. Fulton College of Engineering and Technology > Civil and Environmental Engineering > Course

Nonlinear dynamic finite element analysis of solids. Nonlinear continuum mechanics, finite element formulation, and elementary solution algorithms for nonlinear algebraic problems, focusing on hyperelastic solids. Advanced topics in isogeometric analysis, computational analysis-suitable geometry, and adaptivity. An introduction to dynamics; basic methods of time integration, such as Newmark and "a

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

(CE En-Me En) Optimization Techniques in Engineering [CE EN-575]

BYU > Ira A. Fulton College of Engineering and Technology > Civil and Environmental Engineering > Course

Application of computational optimization techniques to constrained engineering design. Theory and application of gradient-based and gradient-free algorithms for unconstrained and constrained nonlinear problems. Robust design methods.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: C, C++, or similar computer language.

(CE En-Me En) Plasticity and Fracture [CE EN-503]

BYU > Ira A. Fulton College of Engineering and Technology > Civil and Environmental Engineering > Course

Tensor algebra; stress and deformation tensors; relationships between dislocation slip, yielding, plastic constitutive behavior, and microstructure development; cracks and linear elastic fracture mechanics.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Senior standing or instructor's consent.

(CE En-Me En) Structural Vibrations [CE EN-508]

BYU > Ira A. Fulton College of Engineering and Technology > Civil and Environmental Engineering > Course

Dynamic analysis of single degree-of-freedom, discrete multi-degree-of-freedom, and continuous systems. Applications include aerospace, civil structures, and mechanical components.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: or equivalent.

(CE En-MeEn) Stress Analysis and Design of Mechanical Structures [CE EN-501]

BYU > Ira A. Fulton College of Engineering and Technology > Civil and Environmental Engineering > Course

Stress analysis and deflection of structures; general bending and torsion with computer applications to mechanical and aerospace structure design.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: or equivalent.

Advanced Foundation Engineering [CE EN-644]

BYU > Ira A. Fulton College of Engineering and Technology > Civil and Environmental Engineering > Course

Lateral pressures and earth retaining systems, axial and lateral capacities of piles and drilled shafts, foundations subjected to vibratory loadings, foundations on collapsible and expansive soils, soil improvement techniques.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: CE En 341 or equivalent.

Advanced Hydraulic Routing [CE EN-631]

BYU > Ira A. Fulton College of Engineering and Technology > Civil and Environmental Engineering > Course

Study of the equations of motion governing unsteady, two-dimensional water flow in open channels; computer solutions of the equations.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Advanced Soil Mechanics [CE EN-641]

BYU > Ira A. Fulton College of Engineering and Technology > Civil and Environmental Engineering > Course

Advanced discussion and analysis of shear strength of soils; finite-element stress analysis distribution in soils; critical state soil mechanics, unsaturated soil mechanics.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: CEEn 341 or equivalent.

Bridge Structures [CE EN-525]

BYU > Ira A. Fulton College of Engineering and Technology > Civil and Environmental Engineering > Course

Design of composite, continuous beam, and girder bridges, including piers, abutments, floor systems, and bearings; field trips to observe bridge construction and fabrication.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: or equivalent.

Civil and Environmental Engineering Seminar [CE EN-691R]

BYU > Ira A. Fulton College of Engineering and Technology > Civil and Environmental Engineering > Course

Hours: 0.5 Credit, 1.0 Lecture, 0.0 Lab

Civil Engineering Business Operations [CE EN-681]

BYU > Ira A. Fulton College of Engineering and Technology > Civil and Environmental Engineering > Course

Different legal forms of business ownership, business performance metrics, accounting, business development, marketing, operations management, market forces and competition and business strategy.

Hours: 1.5 Credit, 1.5 Lecture, 0.0 Lab
Prerequisites: CE En 471A, 471B, 472; or equivalents.

Civil Engineering Project Management [CE EN-682]

BYU > Ira A. Fulton College of Engineering and Technology > Civil and Environmental Engineering > Course

Managing diversity, building effective teams, team coaching, evaluations, managing conflict and conflict resolution, project management approaches, risk management, critical path, partnering, managing outside consultants, staffing, negotiations, and principles of leadership.

Hours: 1.5 Credit, 1.5 Lecture, 0.0 Lab
Prerequisites: CE En 471A, 471B, 472; or equivalents.

Computer-Aided Geometric Design [CE EN-572]

BYU > Ira A. Fulton College of Engineering and Technology > Civil and Environmental Engineering > Course

Mathematical theory of free-form curves and surfaces and solid geometric modeling. Bezier and B-spline curve and surface theory, parametric and implicit forms, intersection algorithms, topics in computer algebra, and free-form deformation. Several programming projects.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Proficiency in C programming.

Doctoral Dissertation [CE EN-799R]

BYU > Ira A. Fulton College of Engineering and Technology > Civil and Environmental Engineering > Course

Hours: 1.0-9.0 Credit, ARR Lecture, ARR Lab
Prerequisites: Graduate committee's consent.

Environmental Chemistry [CE EN-555]

BYU > Ira A. Fulton College of Engineering and Technology > Civil and Environmental Engineering > Course

Chemical theory and calculation supporting analysis of major organic and inorganic constituents in environmental engineering, focusing on theoretical understanding of the chemical processes.

Hours: 3.0 Credit, 2.0 Lecture, 4.0 Lab

Geo-Environmental Engineering [CE EN-540]

BYU > Ira A. Fulton College of Engineering and Technology > Civil and Environmental Engineering > Course

Hazardous waste statutes and regulations; introduction to hazardous waste treatment, storage, disposal, and monitoring techniques. Geotechnical aspects of environmental engineering. Topics include municipal and hazardous solid waste landfill design and characterization and remediation techniques for contaminated soil and groundwater.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: or equivalents.

Geospatial Environmental Engineering [CE EN-514]

BYU > Ira A. Fulton College of Engineering and Technology > Civil and Environmental Engineering > Course

Modern software development techniques for civil and environmental engineering. Topics include: design and development of component-based software for desktop and web-based applications; data structures and algorithms for modeling, analysis, and visualization; basic problem-solving techniques; web services; and the management and maintenance of software using code versioning systems. Application areas are focused on civil and environmental engineering problems.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Geotechnical Analysis of Earthquake Phenomena [CE EN-545]

BYU > Ira A. Fulton College of Engineering and Technology > Civil and Environmental Engineering > Course

Earthquake magnitude and intensity; design ground motions, elementary dynamics of structures; response spectra; building code provisions; liquefaction and ground failure.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: or equivalents.

Groundwater Contaminant Transport [CE EN-648]

BYU > Ira A. Fulton College of Engineering and Technology > Civil and Environmental Engineering > Course

Fate and transport of contaminants in groundwater. Advection, dispersion, adsorption, biodegradation, and computer simulation focusing on the theory and mathematics used to model these processes.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Groundwater Modeling [CE EN-547]

BYU > Ira A. Fulton College of Engineering and Technology > Civil and Environmental Engineering > Course

Computer simulation of groundwater flow systems; modeling theory, numerical methods, data management, boundary conditions, calibration, and stochastic analysis.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: or equivalent.

Hydraulic Design of Channels and Control Structures [CE EN-535]

BYU > Ira A. Fulton College of Engineering and Technology > Civil and Environmental Engineering > Course

Design of water conveyance channels and control structures, including siphons, chutes, weirs, flumes, dams, spillways, and outlet works.

Hours: 3.0 Credit, 2.0 Lecture, 3.0 Lab
Prerequisites: or equivalent.

Hydroinformatics [CE EN-534]

BYU > Ira A. Fulton College of Engineering and Technology > Civil and Environmental Engineering > Course

Principles of hardware and software systems for water and climate data collection, storage, sharing, interpretation, analysis, and modeling.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Masonry Design [CE EN-528]

BYU > Ira A. Fulton College of Engineering and Technology > Civil and Environmental Engineering > Course

Introduction to analysis, design, and construction of masonry structures. Compressive, tensile, flexural, and shear behavior of masonry structural components.

Hours: 3.0 Credit, 3.0 Lecture, 2.0 Lab
Prerequisites: or equivalent.

Master's Project [CE EN-698R]

BYU > Ira A. Fulton College of Engineering and Technology > Civil and Environmental Engineering > Course

Hours: 1.0-3.0 Credit, 0.0 Lecture, 0.0 Lab
Prerequisites: Graduate committee's consent.

Master's Thesis [CE EN-699R]

BYU > Ira A. Fulton College of Engineering and Technology > Civil and Environmental Engineering > Course

Hours: 1.0-9.0 Credit, ARR Lecture, ARR Lab
Prerequisites: Graduate committee's consent

Pavement Design [CE EN-563]

BYU > Ira A. Fulton College of Engineering and Technology > Civil and Environmental Engineering > Course

Design, construction, evaluation, maintenance, and rehabilitation of flexible and rigid pavements; influence of traffic and environmental factors; mechanistic analysis of pavement structures using computer software.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Portland Cement Concrete Mixture Design and Analysis [CE EN-505]

BYU > Ira A. Fulton College of Engineering and Technology > Civil and Environmental Engineering > Course

Properties and testing of freshly mixed and hardened concrete and constituent materials; concrete mixture design and analysis; concrete construction practices; laboratory experimentation.

Hours: 3.0 Credit, 2.0 Lecture, 3.0 Lab
Prerequisites: or equivalent.

Principles of Hydrologic Modeling [CE EN-531]

BYU > Ira A. Fulton College of Engineering and Technology > Civil and Environmental Engineering > Course

Advanced hydrologic and hydraulic principles with an emphasis on modeling for the purpose of planning and designing draining, flood control, and other water resource facilities.

Hours: 3.0 Credit, 2.0 Lecture, 3.0 Lab
Prerequisites: or equivalent.

Sediment Transport and River Restoration [CE EN-635]

BYU > Ira A. Fulton College of Engineering and Technology > Civil and Environmental Engineering > Course

Sediment transport concepts applied to stream restoration and stream restoration concepts including geomorphology and stream classification. Lectures, field trips, guest lecturers.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: or CE En 433 and instructor's consent.

Seepage and Slope Stability Analysis [CE EN-544]

BYU > Ira A. Fulton College of Engineering and Technology > Civil and Environmental Engineering > Course

Seepage and slope stability analysis of earth dams, levees, excavations, embankments, and natural slopes; construction dewatering, numerical methods, shear strength of soils, limit equilibrium method.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: or equivalent.

Seismic-Resistant Steel Buildings [CE EN-521]

BYU > Ira A. Fulton College of Engineering and Technology > Civil and Environmental Engineering > Course

Background and development of UBC seismic provisions; design of ductile braced frames and steel moment resisting frames; design of diaphragms and collectors.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: or equivalent.

Selected Problems in Civil and Environmental Engineering [CE EN-594R]

BYU > Ira A. Fulton College of Engineering and Technology > Civil and Environmental Engineering > Course

Hours: 1.0-3.0 Credit, ARR Lecture, ARR Lab

Selected Problems in Civil and Environmental Engineering [CE EN-694R]

BYU > Ira A. Fulton College of Engineering and Technology > Civil and Environmental Engineering > Course

Hours: 1.0-3.0 Credit, ARR Lecture, ARR Lab

Selected Topics in Civil and Environmental Engineering [CE EN-794R]

BYU > Ira A. Fulton College of Engineering and Technology > Civil and Environmental Engineering > Course

Hours: 1.0-3.0 Credit, ARR Lecture, ARR Lab

Timber Design [CE EN-529]

BYU > Ira A. Fulton College of Engineering and Technology > Civil and Environmental Engineering > Course

Timber species, composition, and grades; design of beams, straight and tapered glue-lam girders, columns, connections, trusses, shear walls, and structural systems.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: or equivalents.

Traffic Engineering: Characteristics and Operations [CE EN-562]

BYU > Ira A. Fulton College of Engineering and Technology > Civil and Environmental Engineering > Course

Traffic stream characteristics, traffic flow theory, traffic control devices, capacity and level of service, warrants, signal timing and optimization, signal coordination.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: or equivalent.

Traffic Simulation and Analysis [CE EN-662]

BYU > Ira A. Fulton College of Engineering and Technology > Civil and Environmental Engineering > Course

Concept of traffic simulation, modeling techniques, calibration and validation, simulation output comprehension, shock wave analysis, queuing theory, use of simulation software.

Hours: 3.0 Credit, 2.0 Lecture, 3.0 Lab
Prerequisites: CEEn 562 or instructor's consent.

Transportation Site Planning [CE EN-664]

BYU > Ira A. Fulton College of Engineering and Technology > Civil and Environmental Engineering > Course

Characteristics of transportation site planning; traffic impact analysis; principles of access design; driveway, site circulation, and parking lot design; permitting of proposed developments.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Urban Transportation Planning [CE EN-565]

BYU > Ira A. Fulton College of Engineering and Technology > Civil and Environmental Engineering > Course

Urban transportation planning and decision making, intermodal transportation, land-use transportation interrelationships, transportation demand modeling, site impact analysis, sustainable transportation; livable cities.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: or instructor's consent.

Wastewater Treatment Facilities Design [CE EN-651]

BYU > Ira A. Fulton College of Engineering and Technology > Civil and Environmental Engineering > Course

Evaluation, selection, and design of wastewater treatment facilities.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Water and Wastewater Advanced Treatment Processes [CE EN-654]

BYU > Ira A. Fulton College of Engineering and Technology > Civil and Environmental Engineering > Course

Treatment and disposal of industrial wastes; basic industries and their waste problems.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Water Treatment Facilities Design [CE EN-551]

BYU > Ira A. Fulton College of Engineering and Technology > Civil and Environmental Engineering > Course

Evaluation, selection, and design of water treatment facilities.

Hours: 3.0 Credit, 2.0 Lecture, 3.0 Lab
Prerequisites: or equivalent.

Ames, Daniel P

BYU > Ira A. Fulton College of Engineering and Technology > Civil and Environmental Engineering > Faculty

Professor
Civil and Environmental Engineering
PhD, Utah State University, 2002
Research Interest: Civil and Environmental Engineering

Borup, Michael Brett

BYU > Ira A. Fulton College of Engineering and Technology > Civil and Environmental Engineering > Faculty

Associate Professor
Civil and Environmental Engineering
PhD, Clemson University, 1985
Research Interest: Environmental Engineering

Fonseca, Fernando S

Professor
Civil and Environmental Engineering
PhD, University of Illinois, 1997
Research Interest: Structures

Franke, Kevin W

Assistant Professor
Civil and Environmental Engineering
PhD, Brigham Young University, 2011
Research Interest: Geotechnical Engineering

Guthrie, William S

Professor
Civil and Environmental Engineering
PhD, Texas A&M University, 2
Research Interest: Materials and Pavements

Hotchkiss, Rollin Hull

Professor
Civil and Environmental Engineering
PhD, University of Minnesota, 1989
Research Interest: Hydraulics and Hydrology

Jensen, David W

Professor
Civil and Environmental Engineering
PhD, Massachusetts Institute of Technology, 1986
Research Interest: Structures: Advanced Composites

Jones, Norman L

Professor
Civil and Environmental Engineering
PhD, University of Texas, Austin, 1990
Research Interest: Geotechnical Engineering

Miller, A Woodruff

Professor
Civil and Environmental Engineering
PhD, Stanford University, 1975
Research Interest: Hydrology; Hydraulics

Nelson, Everett James

BYU > Ira A. Fulton College of Engineering and Technology > Civil and Environmental Engineering > Faculty

Professor
Civil and Environmental Engineering
PhD, Brigham Young University, 1994
Research Interest: Surveying; GIS; Hydrology

Richards, Paul William

BYU > Ira A. Fulton College of Engineering and Technology > Civil and Environmental Engineering > Faculty

Associate Professor
Civil and Environmental Engineering
PhD, University of California, San Diego, 2004
Research Interest: Structural Engineering

Rollins, Kyle M

BYU > Ira A. Fulton College of Engineering and Technology > Civil and Environmental Engineering > Faculty

Professor
Civil and Environmental Engineering
PhD, University of California, Berkeley, 1987
Research Interest: Geotechnical Engineering

Schultz, Grant George

BYU > Ira A. Fulton College of Engineering and Technology > Civil and Environmental Engineering > Faculty

Professor
Civil and Environmental Engineering
PhD, Texas A&M University, 2003
Research Interest: Traffic Engineering

Scott, Michael A

BYU > Ira A. Fulton College of Engineering and Technology > Civil and Environmental Engineering > Faculty

Assistant Professor
Civil and Environmental Engineering
PhD, The University of Texas at Austin, 2011
Research Interest: Computational Science, Engineering and Mathematics

Williams, Gus P

BYU > Ira A. Fulton College of Engineering and Technology > Civil and Environmental Engineering > Faculty

Associate Professor
Civil and Environmental Engineering
PhD, Northwestern University, 1994
Research Interest: Environmental Geotechnology

Communication Disorders

BYU > David O. McKay School of Education > Department

Address

Communication Disorders

136 TLRB
801-422-4318
comdsec@byu.edu

Programs

Communication Disorders [354361]

The separate but overlapping disciplines represented by the Department of Communication Disorders involve the study of the processes and disorders of hearing, speech, and language. The department integrates principles and methods of acoustics, anatomy, psychology, linguistics, medicine, physiology, and rehabilitation to prepare students to more effectively help persons of all ages who have either congenital or acquired impairments to hearing, speaking clearly, participating in conversations, or any of the other aspects of communication.

The graduate program in the department provides a mixture of academic course work, clinical experience, and research involvement. Students are expected to master knowledge related to treating persons with disorders and to apply this knowledge in clinical activities at BYU and at other professional settings in the community. Strong performance in both course work and clinical activities is required, as is the successful completion and defense of a thesis. Because clinical training requires broad expertise, no clinically relevant topics are excluded from coverage in course work or clinical training; however, student research activities are channeled into topic areas in which faculty have focal expertise.

The master's degree program in the department focuses on speech-language pathology and prepares students to (a) work competently with clients of all ages in all professional settings, (b) conduct research and communicate findings to peers and cooperating professionals, (c) meet requirements for national certification, state licensure, and school licensure, (d) qualify for and excel at doctoral study if desired, and (e) maintain currency in the discipline through lifelong learning.

Approximately 20 students per year are admitted into the program. Students generally complete their programs in two years.

Chair: Christopher Dromey
Graduate Coordinator: Shawn Nissen

Resources & Opportunity

The Department of Communication Disorders is housed in the John Taylor Building and as such is part of the BYU Comprehensive Clinic. This clinic allows speech-language pathology students to work with programs in clinical psychology, marriage and family therapy, and LDS Family Services in interdisciplinary cooperation on a variety of clinical cases. The clinic also allows for shared access to audiovisual services, computers and networks, and tests and therapy materials.

The BYU Speech and Language Clinic is staffed by graduate students under faculty supervision and focuses on assessing and treating the speech and language disorders of students, faculty, staff, missionaries, and the public in conjunction with the department's academic and educational needs.

Research Facilities and Equipment. The facilities supporting research and clinical work include evoked potential and brain mapping, digital audio recording and editing instrumentation, spectrographic, laryngographic, and nasometric analyses of speech and voice production, stroboscopic digital video laryngoscopy, and audiovisual equipment for conversational language sampling and analysis.

Financial Assistance

Financial assistance in the Department of Communication Disorders is given to graduate students in the form of graduate assistantships. These assistantships involve helping faculty in course management or research. Awardees are selected by faculty from those applying for assistantships on the basis of suitability for the work needed. Other financial aid is available in the form of supplementary awards such as partial-tuition scholarships.

Communication Disorders (MS) [354361]

The discipline of speech-language pathology involves the study of the anatomy and physiology of the speech production mechanism, and the typical and atypical development of speech, articulation, voice, fluency, speech rate and rhythm, speech acoustics, speech perception, and swallowing disorders. Speech-language pathology also includes the study of typical and atypical language development and language processing, the assessment of children's language and related social and cognitive abilities, the treatment of language impairments, and the assessment and treatment of aphasia.

Requirements for Degree.

Credit hours 48: 37 hours of coursework, 5 hours of clinical practicum (ComD 688R), and 6 hours of thesis (ComD 699R)
Required courses: ComD 600, 610, 630, 633, 634, 636, 657, 658, 674, 675, 676, 679, 690R
Minor (in related field): optional and in addition to all required major classes.
Residence: see university residence requirements. Transfer of graduate courses taken elsewhere is not guaranteed and will be evaluated on a course-by-course basis.
Thesis.
Examinations: (A) pass ASHA Praxis exam in speech-language pathology; (B) oral defense of thesis.

Required Tests

GRE

Additional Requirements

Personal qualifications will be considered

Aphasia [COMD-676]

Perspectives on the neurology, clinical assessment, and rehabilitation of aphasic language disturbances in adults.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Assessment and Diagnosis [COMD-610]

Performing evaluations and determining how assessment informs clinical decision making and intervention in communication disorders.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Clinical Practices in Speech Sound Disorders [COMD-690]

Survey of theoretical perspectives in phonological development and practical views of the etiology, assessment, and treatment of speech sound disorders. Examining relationships between phonology, language, and literacy development. Course material is presented in relation to traditional and current approaches to clinical intervention. Relevant research will also be reviewed and discussed.

Hours: 2.0 Credit, 4.0 Lecture, 0.0 Lab

Directed Individual Study [COMD-693R]

Hours: 1.0-3.0 Credit, ARR Lecture, ARR Lab
Prerequisites: Instructor's consent.

Early Child Language Intervention [COMD-630]

Theories and practices in language treatment, emphasizing assessment and intervention for developmentally young children.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Fluency Disorders [COMD-658]

BYU > David O. McKay School of Education > Communication Disorders > Course

Assessment and treatment of fluency disorders, including stuttering.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Individuals with Autism Spectrum Disorder and Other Complex Communication Needs [COMD-674]

BYU > David O. McKay School of Education > Communication Disorders > Course

Assessment and treatment of persons with severe disabilities including Autism Spectrum Disorder (ASD) and persons with complex communication needs. Methods include Augmentative and Alternative Communication (AAC).

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Master's Thesis [COMD-699R]

BYU > David O. McKay School of Education > Communication Disorders > Course

Hours: 1.0-6.0 Credit, ARR Lecture, ARR Lab

Motor Speech Disorders [COMD-675]

BYU > David O. McKay School of Education > Communication Disorders > Course

Neuropathology, symptomology, clinical assessment, and treatment of adult motor speech disorders.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Multicultural Issues in Speech-Language Pathology [COMD-636]

BYU > David O. McKay School of Education > Communication Disorders > Course

Speech and language assessment and intervention with persons from culturally and linguistically diverse backgrounds. Specific topics include cultural diversity, bilingualism, and use of interpreters/translators.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: ComD 350 or equivalent.

Practicum in Communication Disorders [COMD-688R]

BYU > David O. McKay School of Education > Communication Disorders > Course

Hours: 1.0 Credit, 2.0 Lecture, 8.0 Lab
Prerequisites: Instructor's consent.

Research Methods [COMD-600]

BYU > David O. McKay School of Education > Communication Disorders > Course

Research methods in audiology and speech-language pathology. Applying statistical techniques; professional literature and writing.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Stat 121 or equivalent.

School-Age Language Disorders [COMD-679]

BYU > David O. McKay School of Education > Communication Disorders > Course

Impact, assessment, and treatment of language impairment in children, emphasizing evaluation and intervention for school-aged children.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Swallowing and Swallowing Disorders [COMD-633]

BYU > David O. McKay School of Education > Communication Disorders > Course

Assessment and treatment of swallowing disorders.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Traumatic Brain Injury [COMD-634]

BYU > David O. McKay School of Education > Communication Disorders > Course

Assessment and treatment of speech and language problems associated with traumatic brain injury.

Hours: 2.0 Credit, 2.0 Lecture, 0.0 Lab

Voice, Resonance, & Upper Airway [COMD-657]

BYU > David O. McKay School of Education > Communication Disorders > Course

Assessment and treatment of disorders of the speaking voice.

Hours: 3.0 Credit, 3.0 Lecture, 1.0 Lab

Cabbage, Kathryn Lynne

BYU > David O. McKay School of Education > Communication Disorders > Faculty

Assistant Professor
Communication Disorders
PhD, University of Nebraska, Lincoln, 2013
Research Interest: Speech Sound Disorders, Speech Processing, Literacy

Dromey, Christopher David

BYU > David O. McKay School of Education > Communication Disorders > Faculty

Professor
Communication Disorders
PhD, University of Colorado, 1995
Research Interest: Speech and Voice Physiology

McPherson, David L

BYU > David O. McKay School of Education > Communication Disorders > Faculty

Professor
Communication Disorders
PhD, University of Washington, 1972
Research Interest: Electrophysiology, Hearing, Language and Brain Imaging

Nissen, Shawn L

Associate Professor
Communication Disorders
PhD, Ohio State University, 2003
Research Interest: Speech Science

Petersen, Douglas Bryan

Associate Professor
Communication Disorders
PhD, Utah State University, 2009
Research Interest: Language Development and Disorders; Literacy

Tanner, Kristine Marie

Assistant Professor
Communication Disorders
PhD, University of Utah, 2005
Research Interest: Voice Disorders

Communications

Address

Communications
360 BRMB
801-422-2632
debby_jackson@byu.edu

Programs

Mass Communications [483660]

The School of Communications offers a broad-based master's program designed to promote critical thinking and research with a particular focus on the interaction between media and society.

The program of study prepares students with the theoretical background, methodological expertise, and critical thinking skills needed both for continued studies at the doctoral level and informed professional practice. It emphasizes communications theory and quantitative and qualitative research methodologies. Specialized topical areas include literature of journalism, communication history, media and religion, international media and communication, communication ethics and law, persuasion, public relations and leadership, and media effects.

One graduate degree is offered through the School of Communications: Mass Communications—MA. A minor in mass communications is also offered.

Approximately fifteen students are admitted to the master's program each fall semester. The anticipated time spent in completing requirements for the master's degree is two years.

Fax: 801-422-0160

Graduate Program Manager: Debby Jackson
Graduate Coordinator: Clark Callahan (801-422-1493)
Director: Ed Carter

Resources & Opportunity

Facilities. The School of Communications is housed in the George H. Brimhall Building. Also affiliated with the department are news media, advertising, public relations and broadcast laboratories and television studios. Graduate students interested in applied studies may structure work in these media outlets into their programs.

Communications Research Center. The Research Center offers state-of-the-art technology and software. Mass communications graduate students have access to staffed statistics and eye-tracking laboratories.

Other resources include a focus group room with audio and video recording capabilities and a social media monitoring center. All resources are supervised by our Director of Communications Research.

For a more detailed description of the graduate program requirements, go to comms.byu.edu.

Financial Assistance

The principal types of financial aid and awards available to mass communications graduate students are teaching and research assistantships, along with some full- and half-tuition scholarships. Under the direction of faculty, teaching assistants oversee undergraduate classes and labs in advertising, broadcasting, journalism, and public relations. Research assistants work closely with graduate faculty in their research and publication activities. Applications for assistantships and scholarships are available online at www.byu.edu/gradstudies.

Mass Communications (MA) [483660]

The master's program is intended to serve as preparation for:

Doctoral studies where theory, teaching, research, and publication are emphasized.
Advancement in communications professions.

Beyond the courses required by the department, students select-in consultation with advisors-the specific courses that best meet their goals and interests. Generally, students with non-communications undergraduate majors will be expected to concentrate on communications electives. Those with a communications baccalaureate are encouraged to seek broadening electives outside the department.

Requirements for Degree.

Credit hours (34): minimum 28 hours of course work.
Required courses: Comms 600, 602, 610, 611, 616 (13 hours).
Electives: 14 credit hours from Comms 604, 607, 612R, 619, 621, 622R, 623, 624, 625, 627, 691R, 692R, 695R, and/or interdisciplinary substitute courses (with prior approval). Electives determined in consultation with advisor and committee.
Thesis (Comms 699R, 6 hours minimum) or project (Comms 698R, 6 hours minimum).
Examination: final oral examination and defense of thesis or project.

Required Tests

GRE

Additional Requirements

1. Exposure to research and statistics
2. Professional competence in written and spoken English
3. Resume

Deadline Notes

Priority deadline: March 31

Final deadline: April 30

Ad Issues and Strategy [COMMS-626]

BYU > College of Fine Arts and Communications > Communications > Course

Advertising theory, research, target market analysis, campaign strategy, creative and media strategies, advertising promotions, and ethical issues facing the advertising industry.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Communications History and Historical Research Methods [COMMS-604]

BYU > College of Fine Arts and Communications > Communications > Course

In-depth investigation of the history of mass media, including study of historical research methods.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Communications/Social Science Research Methods [COMMS-611]

BYU > College of Fine Arts and Communications > Communications > Course

Major methods of research used in communications studies.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Stat 121 or equivalent and/or social science research methods.

Computer-Mediated Communication [COMMS-628]

BYU > College of Fine Arts and Communications > Communications > Course

Students will develop skills needed to study the intersection of human communication, personal relationships, and communication technologies. In particular, students will be able to engage with key theoretical issues associated with communication in social media contexts. Further, they will evaluate influential research on creativity, organization, politics, virality, interpersonal communication, identity, representation, and civility, and apply them to online social interaction. The innovative ideas addressed in this seminar will equip media scholars and professionals with the grounding necessary to determine the best practices to use when communicating via emergent media technologies.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Integrative Persuasive Communications [COMMS-625]

BYU > College of Fine Arts and Communications > Communications > Course

Persuasion theories and links to practice of integrated communications, including promotion, advertising, public relations, direct marketing, and branding.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

International Media and Communications [COMMS-607]

BYU > College of Fine Arts and Communications > Communications > Course

Role of communication internationally and its impact on culture, ethics, morality, and politics around the world. Comparison of communication systems, media flows, and communications among countries.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Introduction to Graduate Studies in Communications [COMMS-600]

BYU > College of Fine Arts and Communications > Communications > Course

Introduction to graduate education, communications theory, research, and academic writing. Faculty research programs presented.

Hours: 1.0 Credit, 1.0 Lecture, 0.0 Lab

Literature of Journalism [COMMS-623]

BYU > College of Fine Arts and Communications > Communications > Course

Critiquing journalism theories and philosophy ranging from traditional libertarian ideals to contemporary movements of public journalism and public service broadcasting.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Master's Project [COMMS-698R]

BYU > College of Fine Arts and Communications > Communications > Course

Hours: 1.0-6.0 Credit, 0.0 Lecture, 0.0 Lab

Master's Thesis [COMMS-699R]

BYU > College of Fine Arts and Communications > Communications > Course

Hours: 1.0-6.0 Credit, ARR Lecture, 0.0 Lab

Media and Religion [COMMS-621]

BYU > College of Fine Arts and Communications > Communications > Course

Seminar regarding the interface of media and religion.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Media Effects: Individual, Family, and Society [COMMS-616]

BYU > College of Fine Arts and Communications > Communications > Course

Media's roles in major social settings. Capstone course, including preparation for comprehensive exams.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Media Literacy and Culture [COMMS-619]

BYU > College of Fine Arts and Communications > Communications > Course

Issues related to gender, race, and class in the communication process. Implications of current developments in critical theory and issues of diversity.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Professional Practicum [COMMS-692R]

BYU > College of Fine Arts and Communications > Communications > Course

Individual work in professional communications settings, with oversight and assessment by graduate faculty member.

Hours: 1.0-3.0 Credit, ARR Lecture, 0.0 Lab
Prerequisites: Committee chair and graduate coordinator approval.

Public Relations Issues and Strategy [COMMS-627]

BYU > College of Fine Arts and Communications > Communications > Course

Relationship of strategic communications and stakeholder theory to current issues in the field, including reputation, image, apologia, trust, transparency, power, leadership, conflict resolution, and change.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Qualitative Research Methods [COMMS-602]

BYU > College of Fine Arts and Communications > Communications > Course

Major methods of qualitative research used in communications studies.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Research Practicum [COMMS-612R]

BYU > College of Fine Arts and Communications > Communications > Course

Practical experience in research under direction of individual faculty.

Hours: 1.0-3.0 Credit, ARR Lecture, Arr Lab

Seminar on Media and Current Societal Issues [COMMS-622R]

BYU > College of Fine Arts and Communications > Communications > Course

Preannounced societal issue or issues (such as environment, impact of new technologies, vulnerable audiences, consumerism, nonprofits, health communications, terrorism, etc.).

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Seminar on Media Law and Ethics [COMMS-624]

BYU > College of Fine Arts and Communications > Communications > Course

Review of literature and research on ethics. Legal and regulatory relationship between government and communications; legal research methods.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Special Studies in Communications [COMMS-691R]

BYU > College of Fine Arts and Communications > Communications > Course

Individual study with a graduate faculty member.

Hours: 1.0-3.0 Credit, ARR Lecture, 0.0 Lab
Prerequisites: Approval of committee chair and graduate coordinator.

Strategic Communications [COMMS-640]

BYU > College of Fine Arts and Communications > Communications > Course

Students in this class will identify a real organization that requires a strategic communication project to solve an important problem for the organization. Throughout the semester students will then create a strategic plan for the organization. They will then execute a project that helps the organization achieve its strategic communications objectives and evaluate its success. Throughout this process, communication theory, practices, and research will be applied to analyzing and solving public relations, advertising, and other strategic communication problems. Students will create a strategic plan using elements from their previous courses, including the advertising and public relations graduate courses.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Studies in Communications Theory [COMMS-610]

BYU > College of Fine Arts and Communications > Communications > Course

Nature and content of contemporary mass communication theory.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Topical Seminar [COMMS-695R]

Seminar on focused pre-announced topic relating to specific media issues.

Hours: 1.0-3.0 Credit, ARR Lecture, 0.0 Lab

Adams, Edward Eugene

Professor
Communications
PhD, Ohio University, 1993
Research Interest: Media Management and Economics

Boyle, Kristoffer D

Assistant Professor
Communications
PhD, Texas Tech University, 2008
Research Interest: Journalism, Newspapers and Editing

Brubaker, Pamela Jo

Assistant Professor
Communications
PhD, Pennsylvania State University, 2012
Research Interest: Public Relations and Social Media

Callahan, Loy Clark

Associate Professor
Communications
PhD, University of Oklahoma, 2002
Research Interest: Media Ecology; Intercultural Adaptation; Cultural Diffusion

Callister, Mark Alden

Professor
Communications
PhD, University of Arizona, 1997
Research Interest: Visual Imagery in Print Advertisements; Communication Strategies Within Non-Profit Organizations

Carter, Edward L

Professor
Communications
JD, Brigham Young University, 2003
Research Interest: First Amendment Law and Policy; Media Regulation

Church, Scott H

Assistant Professor
Communications
PhD, University of Nebraska, Lincoln, 2013
Research Interest: Media and Rhetoric

Cressman, Dale L

Associate Professor
Communications
PhD, University of Utah, 2003
Research Interest: Broadcast and Print Journalism History

Cutri, Christopher

Associate Professor
Communications
MFA, Art Center College of Design, 1997
Research Interest: Creative Advertising

John, Kevin Kimball

Assistant Professor
Communications
PhD, University of Utah, 2015
Research Interest: Health Communications and Media

Plowman, Kenneth Dean

Associate Professor
Communications
PhD, University of Maryland, 1995
Research Interest: Conflict Resolution; Public Relations Management; High-Tech Public Relations

Randle, Quint B

Associate Professor
Communications
PhD, Michigan State University, 2001
Research Interest: Magazines; New Media; Newspapers

Robinson, Thomas Eugene

Professor
Communications
PhD, University of Southern Mississippi, 1996
Research Interest: Portrayal of the Elderly in Media Advertising

Romney, Miles Fleming

BYU > College of Fine Arts and Communications > Communications > Faculty

Assistant Professor
Communications
PhD, Arizona State University, 2016

Thomsen, Steven Riley

BYU > College of Fine Arts and Communications > Communications > Faculty

Professor
Communications
PhD, University of Georgia, 1994
Research Interest: Media Effects; Media and Adolescent Socialization

Wakefield, Robert Irwin

BYU > College of Fine Arts and Communications > Communications > Faculty

Associate Professor
Communications
PhD, University of Maryland, 1997
Research Interest: International Communication

Wilson, Christopher E

BYU > College of Fine Arts and Communications > Communications > Faculty

Assistant Professor
Communications
PhD, University of Florida, 2014
Research Interest: Public Relations Management

Zurcher, Jessica Lauren

BYU > College of Fine Arts and Communications > Communications > Faculty

Assistant Professor
Communications
PhD, University of Utah, 2016

Comparative Arts and Letters

BYU > College of Humanities > Department

Address

Comparative Arts and Letters
3008 JFSB
801-422-2996
comparativestudies@byu.edu

Programs

Comparative Studies [554263]

Widely used in the Renaissance, the term humanities (humanitas or studia humanitatis) refers to the study of human intellectual and artistic creativity. Humanities is both a general academic category (inclusive of literature, history, philosophy, and the history and criticism of art and music) and a discipline in its own right with a methodology for the critical study of intellectual history and aesthetics. The interdisciplinary humanistic fields that the department comprises-humanities, classics, and comparative literature-offer students unusual latitude in pursuing graduate education in the humanities, disciplined by insistence on substantial foreign language skills, competence in critical theory and practice, and the development of scholarly discipline.

One degree is offered through the Department of Humanities, Classics, and Comparative Literature: Comparative Studies-MA. This program admits from five to ten students per year. The MA in comparative studies is designed as a two-year program, and most full-time students are able to complete the MA within two years, usually defending the thesis during spring or summer term of the second year.

Chair: Carl SederholmGraduate Coordinator: Roger Macfarlane

Resources & Opportunity

The Department of Humanities, Classics, and Comparative Literature utilizes the Humanities Technology and Research Support Center and the Reading-Writing Center for the College of Humanities:

The Humanities Technology and Research Support Center provides an array of technological tools, resources, and expertise to foster quality research and scholarship in the College of Humanities. The center is especially active in the production of teaching and research materials. In addition to computer and audio equipment, the center has a variety of video capabilities and in the past few years has become a world leader in computer-assisted language instruction and translation. The department also owns CD ROM databases for classical Greek and Latin texts, the Thesaurus Linguae Graecae and Thesaurus Linguae Latinae, as well as the complete works of many modern authors.

Faculty from the department currently serve as officers in the Classical Association of the Midwest and South (CAMWS), the International Comparative Literature Association (ICLA), the National Association of Humanities Educators (NAHE), the American Conference on Romanticism, and the Society for the Advancement of Scandinavian Study (SASS). In addition, the journals Scandinavian Studies and Prisms: Essays in Romanticism are edited by department faculty members, assisted by graduate students from the department.

For more information, see http://hccl.byu.edu/programs_csma.shtml.

E-mail:comparativestudies@byu.edu.

Financial Assistance

Aid is available in the form of full or partial tuition grants, teaching and research assistantships, internships, and (for advanced students) some student instructorships. Upon admission to the respective programs, candidates will be considered for all of these possibilities based upon merit and availability of department resources. Financial aid is normally limited to two years.

Comparative Studies (MA) [554263]

This degree allows for study of the humanities within a comparative context not normally found in single-discipline graduate programs-that is, through interdisciplinary and comparative perspectives that permit a flexibility and breadth of study, without sacrificing rigor. Graduate students thus learn to combine the synthesizing and analytical skills of various humanistic disciplines in order to develop interdisciplinary and comparative approaches to the materials of human culture. Accordingly, program courses expand knowledge in humanistic disciplines and provide intense opportunities to develop wide-ranging research and writing.

Requirements for Degree.

Credit hours (33): minimum 27 course work hours plus 6 thesis hours.
Required courses: CmpSt 610, 615; two courses from CmpSt 620R, 625R, 630R, 640R, 650R, 660R, 670R.
Electives: six courses in humanities, classics, comparative literature, art history, musicology, philosophy, history, film, or literature (up to 6 hours may be in upper-division undergraduate classes where equivalent graduate classes are not available). One or more of these may be comparative studies seminars, which, in addition to the two required, are chosen in consultation with the student's academic advisor and are subject to approval of the department's graduate council. No more than one directed readings course may be counted toward the MA degree in comparative studies.
Special field: proficiency in a second foreign language or in a discipline other than literature (e.g., art history, musicology, philosophy, film, history, etc.), demonstrated by course work or examination, as determined by the student's graduate committee and the program's graduate council.

Completion of a reading list, which is determined in consultation with a faculty advisor, subject to approval of the department's graduate council.
Thesis.
Examination: final written examination on the reading list; thesis defense.

Required tests

GRE

Additional Requirements

A writing sample

Academic Internship [ARTHC-599R]

Professional museum experience with a curatorial mentor.

Hours: 1.0-8.0 Credit, 0.0 Lecture, 0.0 Lab
Prerequisites: ArtHC graduate student status.

Area Studies [CMPST-625R]

Literature, philosophy, and/or the arts of a particular geographical area. Topics vary.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Art in Theory: Language [ARTHC-505]

Review and critique of major theoretical approaches in art history, emphasizing the recent interest in language and semiotics.

Hours: 3.0 Credit, 2.0 Lecture, 0.0 Lab
Prerequisites: Graduate status.

Art in Theory: Spectatorship [ARTHC-500]

Review and critique of major theoretical approaches in art history, emphasizing the philosophical relationship between viewer and object.

Hours: 3.0 Credit, 2.0 Lecture, 0.0 Lab
Prerequisites: Graduate status.

Colloquium in Comparative Studies [CMPST-615]

Introduction to a variety of critical methods through presentations of work in progress by graduate and visiting faculty. Topics vary.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Critical Theory and Methods [CMPST-660R]

BYU > College of Humanities > Comparative Arts and Letters > Course

Theoretical and practical criticism; problems in critical theory. Topics vary and include aesthetics, cultural theory, aspects of contemporary theory.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Directed Readings [CMPST-680R]

BYU > College of Humanities > Comparative Arts and Letters > Course

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Foreign Language Readings for Art Historians [ARTHC-595R]

BYU > College of Humanities > Comparative Arts and Letters > Course

Special instruction in reading French or German scholarly texts.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

French Readings for Art Historians [ARTHC-595R]

BYU > College of Humanities > Comparative Arts and Letters > Course

Special instruction in reading French scholarly texts.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Greek Poets [GREEK-620R]

BYU > College of Humanities > Comparative Arts and Letters > Course

Detailed study of one major Greek poet or poets. Topics vary.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: 400-level Greek poetry course or equivalent.

Greek Prose Writers [GREEK-625R]

BYU > College of Humanities > Comparative Arts and Letters > Course

Detailed study of one major Greek prose author or authors. Topics vary.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: 400-level Greek prose course or equivalent.

Individual Study [ARTHC-600R]

BYU > College of Humanities > Comparative Arts and Letters > Course

In-depth study into any chosen art-historical era.

Hours: 0.5-8.0 Credit, 0.0 Lecture, 0.0 Lab

Interrelations of the Arts [CMPST-650R]

BYU > College of Humanities > Comparative Arts and Letters > Course

Interrelations between various art forms, especially literature and one other art (literature and art, film, music, etc.). Topics vary.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Introduction to Contemporary Critical Thinking [CMPST-610]

BYU > College of Humanities > Comparative Arts and Letters > Course

A broad interdisciplinary perspective on contemporary literary and aesthetic theory and critical methods as these relate to the study of literature and the arts.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: CmLit 310, Hum 350, Clsscs 420; or equivalents.

Latin Poets [LATIN-620R]

BYU > College of Humanities > Comparative Arts and Letters > Course

Detailed study of a major Latin poet or poets. Topics vary.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: 400-level Latin poetry course or equivalent.

Latin Prose Writers [LATIN-625R]

BYU > College of Humanities > Comparative Arts and Letters > Course

Detailed study of a major Latin prose writer or writers. Topics vary.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: 400-level Latin prose course or equivalent.

Master's Thesis [ARTHC-699R]

BYU > College of Humanities > Comparative Arts and Letters > Course

Hours: 0.5-6.0 Credit, 0.0 Lecture, 0.0 Lab

Master's Thesis [CMPST-699R]

BYU > College of Humanities > Comparative Arts and Letters > Course

Hours: 1.0-9.0 Credit, 0.0 Lecture, 0.0 Lab
Prerequisites: Graduate coordinator's consent.

Plato [GREEK-625R]

BYU > College of Humanities > Comparative Arts and Letters > Course

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Seminar in Latin [LATIN-690R]

BYU > College of Humanities > Comparative Arts and Letters > Course

Graduate seminar on one topic in Roman literature, culture, and history. Topics vary.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: 400-level Latin course or equivalent.

Studies in Ancient Art [ARTHC-520R]

BYU > College of Humanities > Comparative Arts and Letters > Course

Selected topics in Egyptian, Greek, and Roman art.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Studies in Baroque Art [ARTHC-550R]

BYU > College of Humanities > Comparative Arts and Letters > Course

Selected topics in northern and southern baroque art.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Studies in Curatorship [ARTHC-590R]

BYU > College of Humanities > Comparative Arts and Letters > Course

Selected topics in curation and the museum.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Studies in Eighteenth- and Nineteenth-Century Art [ARTHC-560R]

BYU > College of Humanities > Comparative Arts and Letters > Course

Selected topics in eighteenth- and nineteenth-century art of Europe and America.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Studies in Genre [GREEK-640R]

BYU > College of Humanities > Comparative Arts and Letters > Course

Major genres (epic, tragedy, comedy, historiography, etc.). Topics vary.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: 400-level Greek course or equivalent.

Studies in Genres and Forms [CMPST-630R]

BYU > College of Humanities > Comparative Arts and Letters > Course

Topics vary and include epic, tragedy, comedy, narrative, historiography, film.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Studies in Medieval Art [ARTHC-530R]

BYU > College of Humanities > Comparative Arts and Letters > Course

Selected topics in early Christian, Byzantine, Romanesque, and Gothic art.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Studies in Modern and Contemporary Art [ARTHC-570R]

BYU > College of Humanities > Comparative Arts and Letters > Course

Selected topics in modern and contemporary art of Europe and America.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Studies in Periods and Movements [CMPST-620R]

BYU > College of Humanities > Comparative Arts and Letters > Course

Literature, philosophy, and/or the arts of a particular period or movement in cultural history. Problems of periodization. Topics vary.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Studies in Renaissance Art [ARTHC-540R]

BYU > College of Humanities > Comparative Arts and Letters > Course

Selected topics in Northern and Southern Renaissance art.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Studies in the Classical Tradition [CMPST-670R]

BYU > College of Humanities > Comparative Arts and Letters > Course

Studies in the cultures of classical antiquity and their influence on later cultural history. Topics vary.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Studies in Themes and Types [CMPST-640R]

BYU > College of Humanities > Comparative Arts and Letters > Course

Topics vary and include Eden, Arthur, Don Juan, Faust, Don Quixote, Ulysses, Troy.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Allen, Julie Kalani Smith

BYU > College of Humanities > Comparative Arts and Letters > Faculty

Professor
Comparative Arts and Letters

Ancell, Matthew Garry

BYU > College of Humanities > Comparative Arts and Letters > Faculty

Associate Professor
Comparative Arts and Letters
PhD, University of California, Irvine, 2007
Research Interest: Humanities; Seventeenth-Century Spanish and English Literature and the Arts

Bay, Stephen M

BYU > College of Humanities > Comparative Arts and Letters > Faculty

Associate Professor
Comparative Arts and Letters
PhD, University of Illinois, Urbana-Champaign, 2006
Research Interest: Classics; Classical Textual Criticism; Papyrology; Ancient Prose Fiction

Belnap, Heather

BYU > College of Humanities > Comparative Arts and Letters > Faculty

Associate Professor
Comparative Arts and Letters
PhD, University of Kansas, 2007
Research Interest: Nineteenth- and Early Twentieth-Century European Art and Culture: Gender Studies: Critical Theory

Benfell, Vincent Stanley

Professor
Comparative Arts and Letters
PhD, New York University, 1994
Research Interest: Comparative Literature; Medieval and Renaissance Literature (Italian, French, English)

Call, Michael Josiah

Associate Professor
Comparative Arts and Letters
PhD, Yale University, 2007
Research Interest: Humanities; Seventeenth-Century French Literature and Culture

Christenson, Allen J

Professor
Comparative Arts and Letters
PhD, University of Texas, Austin, 1998
Research Interest: Humanities; Precolombian Maya and Mesoamerican Literature, Art, and Culture; Early Modernism; North American Art and Culture; Latin American Culture

Colson III, Robert L

Assistant Professor
Comparative Arts and Letters
PhD, University of California, Irvine, 2010
Research Interest: Humanities; Modernism; Post-Colonial Studies; Narrative Theory

Esplin, Marlene Hansen

Assistant Professor
Comparative Arts and Letters
PhD, Michigan State University, 2012
Research Interest: Hispanic Cultural Studies

Estrada, Tara Carpenter

Assistant Teaching Professor
Comparative Arts and Letters
MFA, University of Utah, 2012
Research Interest: Art

Handley, George Browning

Professor
Comparative Arts and Letters
PhD, University of California, Berkeley, 1995
Research Interest: Humanities; Nineteenth- and Twentieth-Century American, Caribbean, and Latin American Culture; Ethnic Arts; Cultural Theory

Jeppesen, Seth A

Assistant Professor
Comparative Arts and Letters
PhD, University of California, Santa Barbara, 2013
Research Interest: Classics

Johnson, Mark J

Professor
Comparative Arts and Letters
PhD, Princeton University, 1986
Research Interest: History of Roman, Early Christian, Byzantine, and Medieval Art and Architecture

Kramer, Nathaniel Todd

Associate Professor
Comparative Arts and Letters
PhD, University of California, Los Angeles, 2004
Research Interest: Humanities; Twentieth-Century Literature; Scandinavian Studies; European Modernism; Literary Theory

Lawson, Francesca Sborgi

Associate Professor
Comparative Arts and Letters
PhD, University of Washington, 1988
Research Interest: Humanities; Ethnomusicology; Chinese Narrative Performance

Macfarlane, Roger T

Associate Professor
Comparative Arts and Letters
PhD, University of Michigan, 1991
Research Interest: Classics; Republican and Augustan Latin Literature

Oscarson, Christopher P

Associate Professor
Comparative Arts and Letters
PhD, University of California, Berkeley, 2006
Research Interest: Humanities; Nineteenth- and Twentieth-Century Scandinavian Literature; Film

Parry, Joseph D

Professor
Comparative Arts and Letters
PhD, University of Utah, 1995
Research Interest: Humanities; Medieval and Renaissance Studies (especially English, German, Italian)

Peacock, Martha M

Professor
Comparative Arts and Letters
PhD, Ohio State University, 1989
Research Interest: History of Netherlandish Art

Peek, Cecilia Marie

Associate Professor
Comparative Arts and Letters
PhD, University of California, Berkeley, 2000
Research Interest: Classics; Hellenistic History; Roman Imperial History; Greek and Latin Literature

Peer, Larry Howard

Professor
Comparative Arts and Letters
PhD, University of Maryland, College Park, 1969
Research Interest: Comparative Literature; Romanticism; Theory

Pope, Michael F

Assistant Professor
Comparative Arts and Letters
PhD, University of Chicago, 2014
Research Interest: New Testament; Early Christian Literature

Sederholm, Carl H

Professor
Comparative Arts and Letters
PhD, University of Utah, 2002
Research Interest: Humanities; Early American Literature and Culture; American Gothic; American Religion; Popular Culture; Cultural Theory

Soper, Kerry David

Professor
Comparative Arts and Letters
PhD, Emory University, 1998
Research Interest: Humanities; Nineteenth- and Twentieth-Century American Studies; Popular Culture

Stanford, Charlotte Alighieria

BYU > College of Humanities > Comparative Arts and Letters > Faculty

Associate Professor
Comparative Arts and Letters
PhD, Pennsylvania State University, 2003
Research Interest: Medieval Studies; Art History; Gothic Architecture; Gothic Revival

Swensen, James Russel

BYU > College of Humanities > Comparative Arts and Letters > Faculty

Associate Professor
Comparative Arts and Letters
PhD, University of Arizona, 2009
Research Interest: American Art and Architecture, History of Photography

Wise, Elliott D

BYU > College of Humanities > Comparative Arts and Letters > Faculty

Assistant Professor
Comparative Arts and Letters

Yamada, Marc T

BYU > College of Humanities > Comparative Arts and Letters > Faculty

Associate Professor
Comparative Arts and Letters
PhD, University of California, Berkeley, 2006
Research Interest: Japanese Literature and Culture

Computer Science

BYU > College of Physical and Mathematical Sciences > Department

Address

Computer Science
3361 TMCB
801-422-3027
graduate@cs.byu.edu

Programs

Computer Science [693260]
Computer Science [693261]

The Department of Computer Science offers two degrees: an MS in Computer Science and a PhD in Computer Science.

The MS degree is designed to prepare students either to be technically capable of leading development teams in industrial software development or to be ready to continue on for a PhD. The PhD degree prepares students to be researchers and teachers either in industry or academia. Areas of particular emphasis are listed under Resources and Opportunities and under research faculty interests.

The expected duration of the MS program for full-time students who enter without deficiencies is two years. Depending on the number of deficiencies, some students may require additional semesters. Students may not enter the PhD program with deficiencies. For full-time students in the PhD program, the expected duration is three years for those entering the program with an MS in computer science and from four to five years for those entering without an MS in computer science. These expectations assume that students take a full graduate load and begin and complete the steps in their thesis or dissertation research in a timely manner.

Chair: Kevin Seppi
Associate Chair: Dan Ventura
Graduate Coordinator: Michael Jones

Resources & Opportunity

The Computer Science Department offers research in the following areas:

Artificial intelligence and machine learning
Computational science and control
Computer networks, systems, and security
Data and text analytics
Graphics, animation, and computer vision
Human-computer interaction and software development

For more detailed information please see our website: https://cs.byu.edu/

Financial Assistance

The Computer Science Department recognizes that most students require financial assistance to remain in school. The department has funds in the following forms: teaching and research assistantships and tuition awards.

Computer Science (MS) [693260]

Mission Statement. Students in the Master of Science program in the Computer Science Department are prepared to be technical problem solvers, are competent in the state of the art, and have mastered a particular aspect of Computer Science. All students are active in at least one of the Department's research labs and work closely with a faculty advisor in the completion of their M.S. thesis. Consequently, they are able to engage in further research where computers will have a significant impact. M.S. graduates are an asset to their employers as they demonstrate increased insight into solving problems, and are able to manage and complete significant projects. Graduates are prepared with a solid background in both theoretical foundations and practical training for the lifelong learning necessary in this fast-moving field.

Requirements for Degree.

Thesis Option:

Credit hours (30): minimum 24 course work hours plus 6 thesis hours (C S 699R).
Required courses: determined in consultation with graduate committee.
Up to four courses may come from outside the CS department
Students must take at least one course from three of the breadth groups
Only one CS 698R may be used
No more than three 400-level CS courses
Thesis: departmental acceptance of thesis proposal before beginning thesis research. Six credit hours of CS 699R; propose, present, and defend thesis to MS committee
Examinations: oral defense of thesis.
While in the MS program, students are expected to make steady and satisfactory progress toward their degree. Progress reviews take place twice each year. Students who fail to make appropriate progress will be dropped from the program.

Project Option:

Credit hours (33): minimum 30 course work hours plus 3 project hours (697R)
Up to four courses may come from outside the CS department
Students must take at least one course from each of the breadth groups
Only one CS 698R may be used
No more than three 400-level CS courses
Project - 3 credit hours of CS 697R; present project and write up (10 pages) to MS Committee

Required Test

GRE

Applicants with Foreign Credentials:

Applicants with degrees that have been awarded outside of the US must complete a foreign credential evaluation with IERF and request to have the official evaluation report sent electronically to BYU Graduate Studies (**before the applicable program application deadline**) in order to be considered eligible for admission. Please be aware that the IERF process can take up to a month to complete.

Computer Science (PhD) [693261]

Mission Statement. Ph.D. students in the Computer Science Department are prepared to be technical problem solvers, are competent in the state of the art, and have mastered a particular aspect of Computer Science. They are trained to identify and clearly formulate problems, to develop and analyze algorithmic solutions, and to direct research. All Ph.D. students are active in one of the Department's research labs, working closely with a faculty advisor. Ph.D. graduates make a novel contribution to Computer Science in the form of a dissertation and scholarly publications. They are an asset to their employers, as they demonstrate increased insight into formulating and solving problems. Furthermore, they have the skills to see the discipline clearly and to lead out on their own. Graduates are prepared with a solid background in both theoretical foundations and practical training for the lifelong learning necessary in this fast-moving field.

Requirements for Degree.

Credit hours (66): minimum 48 course work hours plus 18 hours of dissertation research (CS 799R). Course work must include C S 611 and may also include up to 30 hours of credit transferred from a completed MS degree.
Qualifying process: (A) pass courses demonstrating broad proficiency in computer science and (B) produce and present a satisfactory research paper.
Dissertation proposal: demonstrate preparedness to do dissertation research by (A) presenting an overview of the dissertation research area, and (B) proposing a research program within the context of this area.
Dissertation
Dissertation defense: make an oral presentation that defends the dissertation research.
Residency: PhD students are expected to be resident for the full duration of their PhD program. Exceptions may be granted if the advisor and graduate committee approve (in advance) a leave of absence.
Teaching: all students must teach at least one course.
While in the PhD program, students are expected to make steady and satisfactory progress toward their degree. Progress reviews take place twice each year. Students who fail to make appropriate progress will be dropped from the program.

Required test

GRE

Additional Requirements

BS in Computer Science or related field is required.

Applicants with Foreign Credentials

Applicants with degrees that have been awarded outside of the US must complete a foreign credential evaluation with IERF and request to have the official evaluation report sent electronically to BYU Graduate Studies (**before the applicable program application deadline**) in order to be considered eligible for admission. Please be aware that the IERF process can take up to a month to complete.

(C S-Chem-Geol-Math-MthEd-Phscs-Stat) Business Career Essentials in Science and Math [C S-500]

Introduction for science, math, and statistics majors to careers in industry. Project planning, oral and written business presentations, business accounting, and technology readiness.

Hours: 1.5 Credit, 1.5 Lecture, 0.0 Lab

Advanced Computer Graphics [C S-655]

BYU > College of Physical and Mathematical Sciences > Computer Science > Course

Advanced computer graphics systems programming and architecture, including ray tracing, radiosity, animation, and physically based modeling.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: CS 455 or instructor's consent.

Advanced Computer Networks [C S-660]

BYU > College of Physical and Mathematical Sciences > Computer Science > Course

Computer networking, software architecture, organization, protocols, routing, global networks, local networks, internet standards, and applications.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: CS 460 or equivalent.

Advanced Computer Security [C S-665]

BYU > College of Physical and Mathematical Sciences > Computer Science > Course

Authentication and authorization using digital credentials.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: CS 465 or instructor's consent.

Advanced Machine Learning Models [C S-678]

BYU > College of Physical and Mathematical Sciences > Computer Science > Course

Advanced models, algorithms, and approaches in neural networks and machine learning.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: CS 472 or equivalent.

Advanced Model Checking [C S-686]

BYU > College of Physical and Mathematical Sciences > Computer Science > Course

Techniques for managing state explosion and specialized algorithms for verifying classes of infinite state systems.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: CS 486 or equivalent.

Advanced Readings [C S-704R]

BYU > College of Physical and Mathematical Sciences > Computer Science > Course

Find, read, evaluate and write about ideas in research papers in a specific computer science topic. Instructor sets the topic for the course.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Graduate students only with instructor's consent.

Advanced Topics in Computer Science [C S-501R]

BYU > College of Physical and Mathematical Sciences > Computer Science > Course

Advanced undergraduate- and graduate-level subjects as announced before each semester.

Hours: 1.0-3.0 Credit, ARR Lecture, 0.0 Lab
Prerequisites: Instructor's consent.

Advanced Topics in Computer Vision [C S-650R]

BYU > College of Physical and Mathematical Sciences > Computer Science > Course

Advanced topics in computer vision reflecting current areas of interest in the field and related applications.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: C S 450 or C S 478 or permission of the instructor.

Advanced Topics in Data Mining [C S-676]

BYU > College of Physical and Mathematical Sciences > Computer Science > Course

Data mining process, data warehousing concepts, text mining, ethical issues, meta-learning, and key success factors.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: C S 478 or equivalent.

Bayesian Methods in Computer Science [C S-677]

BYU > College of Physical and Mathematical Sciences > Computer Science > Course

Applying Bayesian methods useful for incorporating confidence or belief into problems in computer science, allowing computers to better handle uncertainty.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: CS 470 or instructor's consent.

Computational Biology [C S-618]

BYU > College of Physical and Mathematical Sciences > Computer Science > Course

Algorithms for DNA sequence analysis. Heuristics analyzed and developed for NP-complete problems including alignment, phylogeny, secondary structure predictions, protein folding, and microarray analysis.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: C S 240, 252, 312; or equivalents.

Computational Creativity [C S-673]

BYU > College of Physical and Mathematical Sciences > Computer Science > Course

Project-based course for understanding creativity as a way to increase the robustness of intelligent systems while applying AI/ML tools to challenging problems.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: C S 470 or 478 or instructor's consent.

Computational Inference and Recognition in Visual Domains [C S-651]

BYU > College of Physical and Mathematical Sciences > Computer Science > Course

Mathematical representations and modern Machine Learning techniques for the interpretation and recognition of Visual Data (images, video, etc.).

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: C S 450 and C S 478; or equivalents.

Doctoral Dissertation [C S-799R]

BYU > College of Physical and Mathematical Sciences > Computer Science > Course

Hours: 0.5-18.0 Credit, 0.0 Lecture, 0.0 Lab
Prerequisites: Committee chair's consent.

Graduate Special Projects [C S-697R]

BYU > College of Physical and Mathematical Sciences > Computer Science > Course

Graduate-level special projects and mentored learning experiences.

Hours: 1.0-3.0 Credit, Arr Lecture, Arr Lab
Prerequisites: Instructor's consent.

Graduate Topics in Computer Science [C S-601R]

BYU > College of Physical and Mathematical Sciences > Computer Science > Course

Graduate-level subjects and new graduate courses as announced before each semester.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Instructor's consent.

Information Retrieval [C S-653]

BYU > College of Physical and Mathematical Sciences > Computer Science > Course

IR modeling, IR query languages, text indexing and searching, retrieval evaluation, query and text operations, parallel and distributed IR, Web searching.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Interactive Software Systems [C S-656]

BYU > College of Physical and Mathematical Sciences > Computer Science > Course

Fabrication of interactive experiences in the context of emerging technologies; recent advances in human-computer interaction.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: C S 455 and C S 456; or instructor's consent

Master's Project [C S-698R]

BYU > College of Physical and Mathematical Sciences > Computer Science > Course

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Master's Thesis [C S-699R]

BYU > College of Physical and Mathematical Sciences > Computer Science > Course

Hours: 0.5-6.0 Credit, 0.0 Lecture, 0.0 Lab
Prerequisites: Committee chair's consent.

Multi-Agent Systems [C S-670]

BYU > College of Physical and Mathematical Sciences > Computer Science > Course

Introduction to fundamental concepts emphasizing current literature. Topics include game theory, repeated play games, Arrow's impossibility theorem, negotiation, search, and learning.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: CS 470 or equivalent; CS 478 or instructor's consent.

Practicum in Computer Science Teaching [C S-795R]

BYU > College of Physical and Mathematical Sciences > Computer Science > Course

Curricula, principles, concepts and experiences in teaching computer science effectively.

Hours: 3.0 Credit, ARR Lecture, ARR Lab

Readings in Model Checking [C S-786R]

BYU > College of Physical and Mathematical Sciences > Computer Science > Course

Focused readings and projects as suggested by class interest and current trends.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Robust Control [C S-513]

BYU > College of Physical and Mathematical Sciences > Computer Science > Course

Introduction to the analysis and design of feedback systems guaranteed to perform well in spite of model uncertainty.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Theoretical Foundations of Computing [C S-611]

BYU > College of Physical and Mathematical Sciences > Computer Science > Course

Proofs (deductive and inductive reasoning), computability (models of computability and computability issues), and complexity (time and space bounds, nondeterminism, and complexity classification).

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: CS 252 or equivalent; CS 312 or instructor's consent.

Topics in Algorithmic Decision Processes [C S-712R]

BYU > College of Physical and Mathematical Sciences > Computer Science > Course

Latest research in the field of algorithmic decision processes. Recent papers read, presented, and discussed.

Hours: 1.0-3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: C S 412 and instructor's consent.

Topics in Computer Graphics [C S-755R]

BYU > College of Physical and Mathematical Sciences > Computer Science > Course

Latest research in the field of computer graphics. Recent papers read, presented, and discussed.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: C S 655 and instructor's consent.

Topics in Neural Networks and Machine Learning [C S-778R]

BYU > College of Physical and Mathematical Sciences > Computer Science > Course

Advanced topics and readings in neural networks and machine learning.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Clement, Mark Joel

BYU > College of Physical and Mathematical Sciences > Computer Science > Faculty

Professor
Computer Science
PhD, Oregon State University, 1994
Research Interest: Parallel Processing; Bioinformatics; Computational Sciences

Crandall, Jacob William

BYU > College of Physical and Mathematical Sciences > Computer Science > Faculty

Associate Professor
Computer Science
PhD, Brigham Young University, 2006
Research Interest: Artificial intelligence; Human-Machine Systems, Robotics

Deccio, Casey T

BYU > College of Physical and Mathematical Sciences > Computer Science > Faculty

Assistant Professor
Computer Science
PhD, University of California Davis, 2010
Research Interest: Computer Networking: Internet Measurement; Protocol Anti-Abuse

Egbert, Parris K

BYU > College of Physical and Mathematical Sciences > Computer Science > Faculty

Professor
Computer Science
PhD, University of Illinois, 1992
Research Interest: Computer Graphics; Visualization; Virtual Reality; Animation

Farrell, Ryan Matthew

BYU > College of Physical and Mathematical Sciences > Computer Science > Faculty

Assistant Professor
Computer Science
PhD, University of Maryland, 2011
Research Interest: Computer Vision

Flanagan, John K

Professor
Computer Science
PhD, Brigham Young University, 1993
Research Interest: Computer Architecture; Performance Evaluation; Digital System Design

Giraud-Carrier, Christophe Gerard

Professor
Computer Science
PhD, Brigham Young University, 1994
Research Interest: Data Mining; Machine Learning; Computational Health Science

Goodrich, Michael A

Professor
Computer Science
PhD, Brigham Young University, 1996
Research Interest: Human-Robot Interaction; Artificial Intelligence

Holladay, Seth R

Assistant Professor
Computer Science
PhD, Brigham Young University, 2013
Research Interest: Animation

Jones, Michael D

Associate Professor
Computer Science
PhD, University of Utah, 2001
Research Interest: Computer Generated Natural Phenomena; Computer Graphics; Animation

Martinez, Tony R

Professor
Computer Science
PhD, University of California, Los Angeles, 1986
Research Interest: Machine Learning; Neural Networks

Mercer, Eric G

Associate Professor
Computer Science
PhD, University of Utah, 2002
Research Interest: Software Testing, Debug, Verification, and Analysis

Morse, Bryan Stuart

Professor
Computer Science
PhD, University of North Carolina, 1994
Research Interest: Computational Vision; Image Processing; Medical Imaging; Computer Graphics

Ng, Yiu-Kai Dennis

Associate Professor
Computer Science
PhD, Kansas State University, 1991
Research Interest: Information Retrieval, Database System

Seamons, Kent Eldon

Associate Professor
Computer Science
PhD, University of Illinois, 1996
Research Interest: Security; Privacy; Usable Security

Seppi, Kevin Darrell

Professor
Computer Science
PhD, University of Texas, 1990
Research Interest: Bayesian and Other Models for Artificially Intelligent Decision Making

Snell, Quinn O

Professor
Computer Science
PhD, Iowa State University, 1997
Research Interest: Parallel Programming; Bioinformatics; Computational Sciences

Ventura, Dan Aaron

Professor
Computer Science
PhD, Brigham Young University, 1998
Research Interest: Machine Learning; Artificial Intelligence; Computational Creativity

Warnick, Sean C

Associate Professor
Computer Science
PhD, Massachusetts Institute of Technology, 2003
Research Interest: Control Theory; Optimization; Information and Decision Algorithms

Wingate, David

BYU > College of Physical and Mathematical Sciences > Computer Science > Faculty

Assistant Professor
Computer Science
PhD, University of Michigan, 2008
Research Interest: Machine Learning

Zappala, Daniel Mark Alexander

BYU > College of Physical and Mathematical Sciences > Computer Science > Faculty

Associate Professor
Computer Science
PhD, University of Southern California, 1990
Research Interest: Computer Networks; Wireless Networking, Internet Applications and Infrastructure

Counseling Psychology and Special Education

BYU > David O. McKay School of Education > Department

Address

Counseling Psychology and Special Education
340 MCKB
801-422-3859
diane_hancock@byu.edu

Programs

Counseling Psychology [354270]
School Psychology [354265]
Special Education [354261]

The Department of Counseling Psychology and Special Education prepares educators and professionals who work with individuals, small groups, and organizations/systems. The programs offered in the department all pursue at least two common goals. The first is to help individuals enhance the quality of their lives through meaningful personal, educational, and career development. A second common goal is to assist people in overcoming barriers to learning and to experience success and happiness in life. These barriers include unsupportive environments and individuals' difficulties in thinking, learning, making decisions, relating to others, understanding the impact of their behavior, and so forth.

Faculty implement a scientist-practitioner model through which students and faculty enhance learning through research and inquiry. Further, in dealing with those whom they serve, students apply the principles learned from research evidence. Since their work is often highly personal, it is essential that students possess and develop integrity, using professional standards of ethical conduct. They must also develop the knowledge and skills essential to promote positive change in individuals struggling with important aspects of their lives. The settings in which graduates typically serve include public and private schools, colleges, and universities.

Each program assists students in planning individual course work, receiving supervised practical experience, and obtaining appropriate credentials (certification and licensure).

Three degrees are offered through the Department of Counseling Psychology and Special Education: Special Education-MS; School Psychology-EdS; and Counseling Psychology-PhD.

The average number of students admitted varies by program as follows:

Special Education 6 every year

School Psychology 12 every year

Counseling Psychology 6 every year

Chair: Lane Fischer
Counseling Psychology Graduate Coordinator: Aaron P. Jackson
School Psychology Graduate Coordinator: Ellie L. Young
Special Education Graduate Coordinator: Blake Hansen

Resources & Opportunity

Computer Laboratories. Computer laboratories provide graduate students access to the university's computers, enabling students to use several programs, such as SPSS and SAS, to analyze research data. These terminals also permit access to the Internet, library databases, etc. Wireless connections are also available in many locations on campus.

Graduate Student Project and Research Laboratory. Space is provided for graduate students who are working with faculty on research, evaluation, and development projects.

Study Areas. Graduate study areas are available in the CPSE Graduate Lab, the McKay School of Education Technology Education Computing Lab, and the Harold B. Lee Library.

For a more detailed description of the graduate program requirements, view the department Web page.

Financial Assistance

Graduate Assistantships. Graduate assistantships include working with selected faculty members on research projects, curriculum development, and other assignments for 5 to 20 hours per week. Several other organizations on campus, such as the Counseling and Psychological Services, often request students to serve as graduate assistants.

Scholarships. Students may apply through the CPSE Department for partial-tuition scholarships. Scholarships are awarded on the basis of merit and financial need. Contact the department secretary for application forms, deadlines, and additional information about departmental financial assistance.

University Financial Aid. Other sources of financial aid are available to students through the Financial Aid Office, A-41 ASB, Provo, UT 84602-1009. International students can contact the International Students Services Office at internationalservices.byu.edu, then select the "Scholarship" link.

BYU Graduate Studies offers several sources for support such as Graduate Mentoring Awards and Graduate Student Research Fellowship Awards.

Counseling Psychology (PhD) [354270]

The PhD in counseling psychology is accredited by the American Psychological Association (Committee on Accreditation), 750 First Street NE, Washington, DC 20002; phone: (202) 336-5979; fax: (202) 336-5978. It is psychological in nature and is based on the scientist-practitioner model of training. The scientist-practitioner model is an integrated approach to training that acknowledges the interdependence of theory, research, and practice.

The counseling psychology program at BYU emphasizes the educational, developmental, and preventive functions of counseling psychologists. Students are primarily prepared to work as counseling psychologists in counseling centers and in academic departments in university and college settings. Students are also prepared to make remedial interventions. Graduates typically accept positions as counselors or psychologists in college or university counseling centers or as scholars/faculty members in counseling psychology or counselor education programs. Others serve in agencies or private practice as licensed psychologists.

Requirements for Degree.

Credit hours: 111 (not including prerequisite or skill classes).
Required courses: consult department program documents.
Residence: minimum two consecutive full-time semesters while matriculated in the doctoral program (minimum 6 credit hours each semester) on the BYU Provo campus.
Skill requirement: consult department.
Pre-doctoral internship (2,000 hours).
Dissertation.
Examinations: (A) counseling performance evaluations; (B) written comprehensive examination at completion of course work; (C) oral defense of dissertation.

Required Tests

GRE

Psychology GRE encouraged

Additional Requirements

1. Bachelor's or master's degree in counseling or psychology or in a closely related field
2. Personal qualifications will be considered

School Psychology (EdS) [354265]

The EdS degree in school psychology prepares students to pursue credentialing as school psychologists in K-12 educational settings and is approved by the National Association of School Psychologists (NASP) through December 2019. Knowledge and competency areas include counseling (individual and group); responsive services; consultation with parents, teachers, school administrators, and other professionals; child and adolescent emotional and social needs; learning theory; promotion of healthy growth and development; prevention and early intervention; assessment leading to intervention with educational, personal/ social, career, and mental health issues; multicultural counseling; historical and educational foundations; professional roles and expectations; ethics; family and institutional systems; and research and evaluation.

This thesis program requires full-time day attendance. Students are placed in practicum early in the program. The 1200-hour internship is completed at sites where psychological and educational services are provided under the supervision of an appropriately credentialed school psychologist and a university faculty supervisor.

Requirements for Degree.

Credit hours: minimum 70 hours of approved course work including practica, internship, and thesis hours.
Required courses: consult department program documents.
Residence: full-time day attendance first two years, followed by a 1200-hour internship in a school setting.
Examination: PRAXIS exam and portfolio.
Internship: see department program documents for specifics.

Required Test

GRE

Additional Requirements

Personal qualifications will be considered

Resume

Special Education (MS) [354261]

The program in special education prepares graduate students to provide collaborative leadership to facilitate academic and social learning for all students including those with disabilities and/or those at-risk for learning and behavioral problems. In order to prepare special educators to work collaboratively with multidisciplinary teams the masters program focuses on a Multi-tiered System of Supports and Applied Behavior Analysis. The masters program is open to special education teachers, other educators, as well as students from other disciplines. Courses are taught in the evenings to accommodate current school teacher's schedules during Fall, Winter, and Spring. Spring and Summer enrollment is also required.

Requirements for Degree.

Credit hours: 36 hours minimum.
Required courses: CPSE 601, 614, 615, 618, 619, 620, 673, 688R and 699R; plus five hours of electives.
Residence: part-time evening class attendance; required Spring/Summer term enrollment.
Examinations: oral defense of thesis and comprehensive evaluation of content knowledge.

Required Test

GRE

Most successful applicants have scores that average above the median (50th percentile)

Additional Requirements

1. Evidence of successful experience working with students at risk or with disabilities
2. Preference given to applicants who have a teaching license in general education, special education, or a related service qualification

Deadline notes

Six to ten applicants are admitted each year

(CPSE - IP&T) Hierarchical Linear Modeling [CPSE-730]

BYU > David O. McKay School of Education > Counseling Psychology and Special Education > Course

Conceptual and applied processes in hierarchical linear modeling with cross sectional nested data and longitudinal repeated measures data.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

(CPSE - IP&T) Introduction to Research [CPSE-629]

BYU > David O. McKay School of Education > Counseling Psychology and Special Education > Course

Introduction to the design options available for conducting basic and applied educational research and how to read and write research reports. Quantitative, qualitative, and mixed methods along with ideas for protecting human subjects are discussed.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

(CPSE - IP&T) Qualitative Research 2 (Advanced) [CPSE-753R]

BYU > David O. McKay School of Education > Counseling Psychology and Special Education > Course

An in-depth exploration of qualitative research approaches and data analyses. Options include AR/PAR/Self-Study/Narratives; Hermeneutics, Phenomenology; Ethnography/Case Study; Grounded Theory; emerging methods.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

(CPSE - IP&T) Statistics 1: Foundations [CPSE-651]

BYU > David O. McKay School of Education > Counseling Psychology and Special Education > Course

Emphasis on conceptual understanding and practical application of descriptive and basic inferential statistics to decision making.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

(CPSE - IP&T) Statistics 2: Multiple Regression [CPSE-745]

BYU > David O. McKay School of Education > Counseling Psychology and Special Education > Course

An examination of multiple regression as an inferential statistical procedure in its own right and as a foundation for subsequent courses in structural equation modeling, path analysis, and factor analysis.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

(CPSE - IP&T) Structural Equation Modeling [CPSE-747]

BYU > David O. McKay School of Education > Counseling Psychology and Special Education > Course

Examination of Structural Equation Modeling with expressions in Path Analysis, Confirmatory Factor, and Latent Variable Modeling.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

(CPSE- IP&T) Meta Analysis [CPSE-789]

BYU > David O. McKay School of Education > Counseling Psychology and Special Education > Course

An overview of qualitative research synthesis, methods for systematic literature reviews and meta-analysis. A balanced approach between conceptualization and application with practice using existing data sets and statistical packages.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

(CPSE-IP&T) Qualitative Research 1 (Intro to Qualitative Research) [CPSE-653]

BYU > David O. McKay School of Education > Counseling Psychology and Special Education > Course

Provides an introduction to qualitative inquiry in education, emphasizing major assumptions of qualitative research, a survey of prominent qualitative approaches, differences between various qualitative approaches and more traditional qualitative strategies, and practice with basic qualitative research skills such as interviewing, transcription, data analysis, and report writing.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Academic and Behavioral Problem Solving via MTSS [CPSE-615]

BYU > David O. McKay School of Education > Counseling Psychology and Special Education > Course

Principles, procedures, and strategies for academics and classroom behavior management using Multi-Tiered System of Supports and evidence-based practices to assist at-risk learners in mastering academic and behavioral competencies for success in school and life.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Admission to a graduate program.

Academic Assessment and Interventions [CPSE-609]

BYU > David O. McKay School of Education > Counseling Psychology and Special Education > Course

Curriculum-based evaluation integrated with standardized academic assessment of reading, writing, and math. Identifying academic needs; developing research-based interventions; setting goals; monitoring progress; and adapting interventions as needed.

Hours: 4.0 Credit, 4.0 Lecture, 0.0 Lab
Prerequisites: CPSE 532 or equivalent; admission into CPSE graduate program.

Academic Internship [CPSE-688R]

BYU > David O. McKay School of Education > Counseling Psychology and Special Education > Course

Practical experience in a public school setting.

Hours: 1.0-3.0 Credit, 0.0 Lecture, ARR Lab

Advanced Career Counseling [CPSE-744]

BYU > David O. McKay School of Education > Counseling Psychology and Special Education > Course

Survey of current research in career psychology. Advanced career counseling techniques focusing on the interface between career and personal issues and the use of assessment.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Advanced Practicum 1: Counseling Psychology [CPSE-776R]

BYU > David O. McKay School of Education > Counseling Psychology and Special Education > Course

Clinical experiences conducted primarily through collaboration with BYU's Counseling and Career Center and focusing on career and educational counseling.

Hours: 0.5-3.0 Credit, ARR Lecture, ARR Lab
Prerequisites: Admission to graduate study in counseling psychology.

Advanced Practicum 2: Counseling Psychology [CPSE-777R]

BYU > David O. McKay School of Education > Counseling Psychology and Special Education > Course

Clinical experiences and psychotherapeutic training conducted primarily through collaboration with BYU's Counseling and Career Center.

Hours: 0.5-3.0 Credit, ARR Lecture, ARR Lab
Prerequisites: Admission to graduate study in counseling psychology.

Advanced Seminar [CPSE-790R]

BYU > David O. McKay School of Education > Counseling Psychology and Special Education > Course

Hours: 0.5-3.0 Credit, ARR Lecture, ARR Lab
Prerequisites: Admission to graduate work.

Advanced Theory of Group Counseling [CPSE-748]

BYU > David O. McKay School of Education > Counseling Psychology and Special Education > Course

Theory and methods of group counseling; advanced skills in conducting group therapy.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Applied Behavioral Assessment and Intervention [CPSE-614]

BYU > David O. McKay School of Education > Counseling Psychology and Special Education > Course

Functional assessment of behaviors using formal and informal behavioral observations. Utilizing collected data to develop and monitor behavioral interventions.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Autism Spectrum Disorders [CPSE-613]

BYU > David O. McKay School of Education > Counseling Psychology and Special Education > Course

Overview of characteristics, etiology, and prevalence of Autism Spectrum Disorders (ASD); teaches strategies and skills supporting children's learning and daily functioning; review of instruction strategies, classroom organization, and teaming with families and professionals.

Hours: 1.0-3.0 Credit, Arr Lecture, 0.0 Lab
Prerequisites: Admission into CPSE graduate program or instructor's consent.

Bilingual Assessment [CPSE-607]

BYU > David O. McKay School of Education > Counseling Psychology and Special Education > Course

Assessment and educational intervention for children from non-English-language and other diverse backgrounds. Utilizing nonverbal and alternative forms of assessment.

Hours: 1.5 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: CPSE graduate major status.

Biological Basis of Behavior [CPSE-608]

BYU > David O. McKay School of Education > Counseling Psychology and Special Education > Course

Biological basis of human behavior: relationship between neurological processes and behavior; medications used in treating various disorders.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: CPSE graduate major status.

Career Development and Assessment [CPSE-644]

BYU > David O. McKay School of Education > Counseling Psychology and Special Education > Course

Theories of career development in lifespan and career counseling. Assessing interests, values, and other characteristics related to career decision making.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Child and Adolescent Social/Emotional Assessment and Intervention [CPSE-602]

BYU > David O. McKay School of Education > Counseling Psychology and Special Education > Course

Theory of assessment and intervention for youth with behavioral, social, and emotional problems. Evidence-based interventions focusing on individual, group, and school-wide application. Assessments are aligned with DSM-V and IDEA identification systems. Interventions focus on evidence-based practice.

Hours: 3.0-4.0 Credit, Arr Lecture, 0.0 Lab
Prerequisites: Admission into CPSE graduate program.

Consultation Within School and Family Systems [CPSE-610]

BYU > David O. McKay School of Education > Counseling Psychology and Special Education > Course

Models and methods of consultation with teachers, parents, and professionals.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Counseling Multicultural and Diverse Populations [CPSE-751]

BYU > David O. McKay School of Education > Counseling Psychology and Special Education > Course

Multicultural competency training on issues of race, ethnicity, gender, sexual orientation, age, socioeconomic status, disability, and religion. Knowledge, skills, and awareness applied to counseling.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Counseling Psychology Clerkship [CPSE-778R]

BYU > David O. McKay School of Education > Counseling Psychology and Special Education > Course

Clinical experiences and psychotherapeutic training conducted off campus in an approved community agency clinical setting.

Hours: 1.0-3.0 Credit, Arr Lecture, 0.0 Lab
Prerequisites: Admittance into doctoral program in counseling psychology.

Counseling Theory and Interventions [CPSE-646]

BYU > David O. McKay School of Education > Counseling Psychology and Special Education > Course

Various theories of counseling, current research, processes, and micro-skills training for interviewing and relationship building.

Hours: 3.0 Credit, 3.0 Lecture, 1.0 Lab

Couple and Family Counseling [CPSE-790R]

BYU > David O. McKay School of Education > Counseling Psychology and Special Education > Course

Hours: 0.5-3.0 Credit, ARR Lecture, ARR Lab

Crisis Intervention [CPSE-655]

BYU > David O. McKay School of Education > Counseling Psychology and Special Education > Course

Human crises; preventive, developmental, and remedial interventions within school and family systems.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Current Issues and Research: Principles of Behavior [CPSE-601]

BYU > David O. McKay School of Education > Counseling Psychology and Special Education > Course

Introduction to the current issues and research behind the principles, concepts, and experimental foundation of behavior analysis.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Admission to special education master's program or instructor's consent.

Diagnosis and Treatment of Mental Disorders [CPSE-715]

BYU > David O. McKay School of Education > Counseling Psychology and Special Education > Course

Diagnosis, classification, and treatment of emotional problems and mental disorders.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Directed Individual Study [CPSE-693R]

BYU > David O. McKay School of Education > Counseling Psychology and Special Education > Course

Hours: 0.5-3.0 Credit, ARR Lecture, ARR Lab
Prerequisites: Instructor's consent.

Doctoral Dissertation [CPSE-799R]

BYU > David O. McKay School of Education > Counseling Psychology and Special Education > Course

Formal report and defense of substantive research topic designed to make an original contribution to knowledge in the field.

Hours: 0.5-9.0 Credit, ARR Lecture, ARR Lab
Prerequisites: Completion of skill requirements.

Ethical/Legal Standards and Issues [CPSE-710]

BYU > David O. McKay School of Education > Counseling Psychology and Special Education > Course

Ethical and legal standards and issues in the helping professions.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Ethics, Professional Conduct, and Legal Issues in Special Education [CPSE-618]

BYU > David O. McKay School of Education > Counseling Psychology and Special Education > Course

Core professional and ethical compliance principles, laws and regulations to guide policy issues, and problem solving using a legal reference for working with students who are at risk.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Admission to special education master's program or instructor's consent.

Ethics, Professional Roles, and Standards [CPSE-605]

BYU > David O. McKay School of Education > Counseling Psychology and Special Education > Course

Introduction to the profession of school psychology; ethics, professional roles, and standards of practice, focusing particularly on school-based settings.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Admission to one of the CPSE graduate programs.

Evidence-Based Academic Intervention for RTI [CPSE-620]

BYU > David O. McKay School of Education > Counseling Psychology and Special Education > Course

Prepares learners to work collaboratively within a school-wide multi-tiered system of support to assess individual student academic needs, to use data to plan instruction, to monitor student progress and make changes as needed.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: CPSE 601; CPSE 614 or 615; CPSE 688R; CPSE 699R.

Group Counseling and Intervention [CPSE-648]

BYU > David O. McKay School of Education > Counseling Psychology and Special Education > Course

Primarily group approaches to personal and social counseling and guidance, including skill-streaming groups, divorce and loss groups, parent education groups, grief therapy interventions, and problem-focused interventions.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Human Growth and Development [CPSE-649]

BYU > David O. McKay School of Education > Counseling Psychology and Special Education > Course

Psychoeducational aspects of developmental theory across the life span, including psychosocial, moral, ego, cognitive, faith, and identity. Developmental implications in the counseling process.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Internship: School Psychology [CPSE-688R]

BYU > David O. McKay School of Education > Counseling Psychology and Special Education > Course

Concluding supervised practical experience in assessment, counseling, and interventions in a school setting. Testing, consultation, and other activities of the school psychologist.

Hours: 1.0-3.0 Credit, 0.0 Lecture, ARR Lab

Internship: Special Education [CPSE-688R]

BYU > David O. McKay School of Education > Counseling Psychology and Special Education > Course

Practical experience in assessment, teaching, and mentoring in a school setting.

Hours: 1.0-3.0 Credit, 0.0 Lecture, ARR Lab

Master's Thesis [CPSE-699R]

BYU > David O. McKay School of Education > Counseling Psychology and Special Education > Course

Hours: 0.5-6.0 Credit, ARR Lecture, ARR Lab

Objective and Projective Personality Assessment [CPSE-725]

BYU > David O. McKay School of Education > Counseling Psychology and Special Education > Course

Objective assessment of personality (including MMPI) as well as projective techniques (including TAT). Pragmatic psychological report writing.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Instructor's consent.

Philosophy and Theories in Counseling Psychology [CPSE-702]

BYU > David O. McKay School of Education > Counseling Psychology and Special Education > Course

Introduction to counseling psychology. Philosophical assumptions and theoretical perspectives. Integration of science and practice within a consistent philosophical framework.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Positive Behavior Support: Managing Challenging Behaviors [CPSE-619]

BYU > David O. McKay School of Education > Counseling Psychology and Special Education > Course

Prepares special educators to treat challenging problem behaviors. Building on universal behavioral strategies by using targeted and intense interventions required for students with severe behavioral challenges, referred to as Tiers 2 and 3 problems.

Hours: 3.0 Credit, 2.0 Lecture, 1.0 Lab

Practicum in Counseling Psychology [CPSE-679R]

BYU > David O. McKay School of Education > Counseling Psychology and Special Education > Course

Clinical experience in individual counseling, group counseling, consultation, testing, in-service, career and education guidance, and/or therapeutic interventions in an educational setting under supervision.

Hours: 1.0-3.0 Credit, ARR Lecture, ARR Lab
Prerequisites: Admission into a CPSE graduate program.

Practicum in School Psychology [CPSE-678R]

BYU > David O. McKay School of Education > Counseling Psychology and Special Education > Course

Supervised experiences in observing, planning, and implementing effective assessment, intervention, and monitoring strategies in school settings.

Hours: 1.0-3.0 Credit, ARR Lecture, ARR Lab
Prerequisites: Admission into a CPSE graduate program.

Predoctoral Counseling Psychology Internship [CPSE-788R]

BYU > David O. McKay School of Education > Counseling Psychology and Special Education > Course

One calendar year of full-time or two years of half-time supervised clinical counseling and psychotherapy for a total of 2,000 clock hours.

Hours: 1.0-9.0 Credit, ARR Lecture, ARR Lab
Prerequisites: All other course work, and comprehensive examinations.

Principles and Theories of Learning [CPSE-622]

BYU > David O. McKay School of Education > Counseling Psychology and Special Education > Course

Learning and cognitive development theories and their application to attitudinal and behavioral change.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Psychoeducational Foundations [CPSE-606]

BYU > David O. McKay School of Education > Counseling Psychology and Special Education > Course

Basic educational and counseling philosophy; tests and measurement theory; professional roles and challenges; the school counselor--psychologists' personal impact on students and programs.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Psychometric Foundations and Assessment of Intelligence [CPSE-647]

BYU > David O. McKay School of Education > Counseling Psychology and Special Education > Course

Testing and measurement theory and experience in administering, scoring, and interpreting various standardized and individual intelligence tests.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Admission to graduate study in counseling/school psychology or counseling psychology.

Research Theory and Methods in Counseling Psychology [CPSE-750]

BYU > David O. McKay School of Education > Counseling Psychology and Special Education > Course

Advanced counseling process and outcome research methods. Includes between groups, within-subjects experimental designs; quasi-experimental and times series designs; discovery-oriented, small N, and qualitative research strategies.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Admission to PhD program in counseling psychology.

Seminar in Special Education [CPSE-690R]

BYU > David O. McKay School of Education > Counseling Psychology and Special Education > Course

Hours: 0.5-4.0 Credit, ARR Lecture, 0.0 Lab

Single-Subject Research Design [CPSE-673]

BYU > David O. McKay School of Education > Counseling Psychology and Special Education > Course

Application of applied behavior analysis in designing and conducting single-subject research in school and other applied settings.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Admission to special education master's program or instructor's consent.

Social Psychology [CPSE-650]

BYU > David O. McKay School of Education > Counseling Psychology and Special Education > Course

Current theories and research on social interactions and their implications for understanding human thoughts, feelings, and behavior.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Special Education Law, Regulations, and Policies [CPSE-611]

BYU > David O. McKay School of Education > Counseling Psychology and Special Education > Course

Overview of laws, regulations, and policies related to special and general education and professional practice in school psychology.

Hours: 1.5 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: CPSE graduate major status.

Special Projects [CPSE-697R]

BYU > David O. McKay School of Education > Counseling Psychology and Special Education > Course

Hours: 0.5-6.0 Credit, ARR Lecture, ARR Lab
Prerequisites: Stat 552 and CPSE 672 or equivalent.

Spiritual Values and Methods in Psychotherapy [CPSE-656]

BYU > David O. McKay School of Education > Counseling Psychology and Special Education > Course

Spiritual values and perspectives, issues, and approaches in counseling and psychotherapy.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Supervision and Consultation Theory [CPSE-746]

BYU > David O. McKay School of Education > Counseling Psychology and Special Education > Course

Theoretical models and approaches to consultation and supervision of counseling; practice in supervising counselors in training.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

University Teaching Practicum [CPSE-779R]

BYU > David O. McKay School of Education > Counseling Psychology and Special Education > Course

University teaching under supervision of a faculty member, including teaching or team teaching an undergraduate course and/or team teaching a master's level course (or portions of courses).

Hours: 3.0 Credit, 2.0 Lecture, 0.0 Lab
Prerequisites: Admission to graduate study in counseling psychology.

Allen, Gerald Kawika

BYU > David O. McKay School of Education > Counseling Psychology and Special Education > Faculty

Assistant Professor
Counseling Psychology and Special Education
PhD, University of Missouri Columbia, 2011
Research Interest: Multicultural Psychology; Polynesian Americans; Spirituality

Bingham, Jennie L

BYU > David O. McKay School of Education > Counseling Psychology and Special Education > Faculty

Assistant Clinical Professor
Counseling Psychology and Special Education
PhD, Brigham Young University, 2011
Research Interest: Abuse Survivors; Multicultural/Diversity; Depression; Eating Disorders

Caldarella, Paul

Associate Professor
Counseling Psychology and Special Education
PhD, Utah State University, 1998
Research Interest: Social Skills; Behavioral Assessment and Intervention

Charlton, Cade T

Assistant Professor
Counseling Psychology and Special Education
PhD, Utah State University, 2016
Research Interest: Multi-tiered Systems of Support; ABA

Cutrer, Elizabeth Ann

Assistant Professor
Counseling Psychology and Special Education
PhD, University of North Carolina, Chapel Hill, 2016
Research Interest: Literacy Intervention Implementation; Training Pre-Service Teachers

Fischer, Lane

Associate Professor
Counseling Psychology and Special Education
PhD, University of Minnesota, 1991
Research Interest: Counseling; School Psychology

Gabrielsen, Terisa P

Assistant Professor
Counseling Psychology and Special Education
PhD, University of Utah, 2012
Research Interest: Autism; ADHD; Interdisciplinary Treatment and Support; Gifted and Talented

Griner, Derek

Associate Clinical Professor
Counseling Psychology and Special Education
PhD, Brigham Young University, 2008
Research Interest: Multicultural Psychology, Disability Services

Hansen, Blake Darrell

Assistant Professor
Counseling Psychology and Special Education
PhD, University of Kansas, 2010
Research Interest: Behavioral Analysis and Severe Disabilities

Hansen, Kristina S Withers

Assistant Clinical Professor
Counseling Psychology and Special Education
PhD, Brigham Young University, 2012
Research Interest: Individual and Group Psychotherapy; Anxiety and Depression; Training and Supervision

Heath, Melissa Ann

Professor
Counseling Psychology and Special Education
PhD, Texas A&M University, 1996
Research Interest: School-Based Crisis Intervention; Social Emotional Support; Grief; Bibliotherapy

Jackson, Aaron Paul

Associate Professor
Counseling Psychology and Special Education
PhD, University of Missouri, Columbia, 1993
Research Interest: Career Development of Native Americans; Counseling Philosophy and Theories

Kellems, Ryan O

Assistant Professor
Counseling Psychology and Special Education
PhD, University of Kansas, 2011
Research Interest: Transition; Video Modeling; Autism; Secondary Special Education

Nielsen, Stevan L

Clinical Professor
Counseling Psychology and Special Education
PhD, University of Washington, 1984
Research Interest: Individual and Group Psychotherapy; Training and Supervision; Psychological Assessment

Prater, Mary Anne

Professor
Counseling Psychology and Special Education
PhD, Utah State University, 1987
Research Interest: Mild/Moderate Disabilities; Multicultural Special Education

Sabey, Christian Vance

Assistant Professor
Counseling Psychology and Special Education
PhD, Utah State University, 2015
Research Interest: Behavior Analysis & Intervention; Social Skills Instruction

Smith, Timothy B

BYU > David O. McKay School of Education > Counseling Psychology and Special Education > Faculty

Professor
Counseling Psychology and Special Education
PhD, Utah State University, 1997
Research Interest: Moral Issues; Spirituality; Quality Relationships; Family

Worthen, Vaughn Eugene

BYU > David O. McKay School of Education > Counseling Psychology and Special Education > Faculty

Clinical Professor
Counseling Psychology and Special Education
PhD, University of Kansas, 1993
Research Interest: Career Counseling; Positive Psychology; Supervision

Young, Ellie L

BYU > David O. McKay School of Education > Counseling Psychology and Special Education > Faculty

Associate Professor
Counseling Psychology and Special Education
PhD, University of South Florida, 2001
Research Interest: Gender Issues in Education; Self-Concept

Educational, Inquiry, Measurement, and Evaluation

BYU > David O. McKay School of Education > Department

Address

EIME Contact Information
150-M MCKB
801-422-7078; 422-4717
eime@byu.edu

Programs

Educational Inquiry Measurement and Evaluation [350060]

This is an inter-departmental PhD program offered by the David O. McKay School of Education. The program is designed to prepare graduates who have the knowledge, expertise, experience, and character traits necessary to work productively as researchers, evaluators, policy analysts, assessment specialists, and/or professors in a variety of settings including (a) universities, (b) federal, state, and local education agencies, (c) private research and evaluation firms, and (d) testing companies.

The EIME program draws graduate faculty from each of the five departments within the McKay School of Education and from other arts and sciences departments at the university.

Fax: (801) 422-0314

Graduate Coordinator: Richard R. Sudweeks

Financial Assistance

Students admitted to this program are required to be enrolled as full-time, resident students. Financial assistance is offered in the form of tuition stipends and research assistantships (20 hours per week).

Educational Inquiry Measurement and Evaluation (PhD) [350060]

Students are expected to complete 71 credit hours in the following categories:

Required courses (21 credit hours): EIME 630, EdLF 650, IP&T 653 or CPSE 653; IP&T 745 or CPSE 745; IP&T 674R, 752, 761
Elective methods courses (12 credit hours)

Students are expected to complete a coherent set of at least four elective courses selected from the categories listed below. Students may enroll for directed individual study on a selected topic in any category in which they have already completed at least one course.
1. Foundations of Inquiry in Education: CPSE 789
2. Designs for Inquiry: EIME 720; CPSE 673
*3. Qualitative and Quantitative Methods (one course must be completed in this area):*Soc 706R; IP&T 753 or CPSE 753; IP&T 730 or CPSE 730; IP&T 747 or CPSE 747
4. Educational Measurement and Evaluation: IP&T 754; IP&T 692R or EIME 693R

Content Area Specialty (12 credit hours)

Each student is expected to choose a content area specialty from one of the four options listed below. Students are expected to complete at least four courses within their chosen area of focus including one or two required courses depending on the specialty area selected.
1. The Preparation and Development of Educators

Required courses: TEd 611, TEd 612 and TEd 613

Elective courses: Complete at least one course from the following:
TEd 610, 660, 661, 665, CPSE 605, 611, 618

2. Language, Literacy, and Communication

Required courses: TEd 620

Elective courses: At least 9 additional credits selected from the following
TEd 603, 622, 623; ComD 630, 679

3. Learning and Instruction

Required courses: 6 credit hours including two of these three (CPSE 622, IP&T 620, or TEd 611)

Elective courses: At least 6 additional credit hours selected from the following
CPSE 622, 649, 693R; IP&T 564, 692R, 693R or 750

4. Social-emotional Development and Intervention

Required course: CPSE 649 (3 credit hours)

Elective courses: At least 9 additional credit hours selected from the following

CPSE 614, 655, 693R; IP&T 750; MFHD 660

5. Education Policy Analysis

Required courses: EDLF 750 & 780

Elective courses: At least 6 hours selected from EDLF 721, 722, or 694R

Seminar (2 credit hours)

Students are expected to enroll in the weekly seminar (EIME 690R) in each fall and winter semester during their first two years in the program. Students earn 0.5 credits per semester.

Internships (6 credit hours)

After completing their coursework, each student will be expected to participate in two 3-credit internships or apprenticeships selected from EIME 781, 782, 783, 784, 785, or 786. Internship placements will be based on the interests of each student as well as the needs of the sponsoring agency. Applications must be submitted in writing and approved by both the students' graduate advisory committee and the EIME advisory council prior to beginning the experience.

Dissertation: (EIME 799R: 18 credit hours)

Required Test

GRE

Additional Requirements

Must have a master's degree
Cumulative GPA of 3.2 or higher for last 60 hours of course work.
Letter of intent.

Design and Analysis Consulting Apprenticeship [EIME-786]

BYU > David O. McKay School of Education > Educational, Inquiry, Measurement, and Evaluation > Course

Mentored, applied experience working as a design and analysis consultant for a university.

Hours: 3.0 Credit, 0.0 Lecture, 0.0 Lab

Design-Based Research Methods in Education [EIME-720]

BYU > David O. McKay School of Education > Educational, Inquiry, Measurement, and Evaluation > Course

Principles of formative experimentation in studying developing interventions in natural contexts. Challenges of selecting and integrating inquiry methods, resolving implementation problems, linking programmatic variables to theory, assessing effects, and drawing valid conclusions.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Directed Independent Study [EIME-693R]

BYU > David O. McKay School of Education > Educational, Inquiry, Measurement, and Evaluation > Course

Faculty-supervised readings as arranged by student.

Hours: 1.0-3.0 Credit, 0.0 Lecture, 0.0 Lab

Dissertation [EIME-799R]

BYU > David O. McKay School of Education > Educational, Inquiry, Measurement, and Evaluation > Course

Successfully complete and defend a dissertation.

Hours: 1.0-18.0 Credit, 0.0 Lecture, 0.0 Lab
Prerequisites: Successful completion of required course work.

Internship in Educational Evaluation [EIME-783]

BYU > David O. McKay School of Education > Educational, Inquiry, Measurement, and Evaluation > Course

Mentored, applied experience working as an evaluator for a college, university, government agency, or private company that conducts evaluations for clients.

Hours: 3.0 Credit, 0.0 Lecture, 0.0 Lab

Internship in Educational Measurement and Assessment [EIME-782]

BYU > David O. McKay School of Education > Educational, Inquiry, Measurement, and Evaluation > Course

Mentored, applied experience working for a company or government agency that develops tests or administers testing programs. Written reports required.

Hours: 3.0 Credit, 0.0 Lecture, 0.0 Lab

Internship in Educational Policy Analysis [EIME-784]

BYU > David O. McKay School of Education > Educational, Inquiry, Measurement, and Evaluation > Course

Mentored, applied experience working in policy analysis for a government agency, private company, or foundation.

Hours: 3.0 Credit, 0.0 Lecture, 0.0 Lab

Internship in Educational Research [EIME-781]

BYU > David O. McKay School of Education > Educational, Inquiry, Measurement, and Evaluation > Course

Mentored, applied experience working on educational research projects for a college, university, government agency, foundation, or private company.

Hours: 3.0 Credit, 0.0 Lecture, 0.0 Lab
Prerequisites: IP&T 682 plus at least three other courses in research methods and statistical analysis.

Philosophical and Psychological Foundations of Inquiry in Education [EIME-630]

BYU > David O. McKay School of Education > Educational, Inquiry, Measurement, and Evaluation > Course

The formative ideas in philosophy and psychology used to conduct and evaluate scholarly inquiry in education. Includes basic issues, inquiry methods, and forms of scholarly analysis.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Seminar [EIME-690R]

BYU > David O. McKay School of Education > Educational, Inquiry, Measurement, and Evaluation > Course

Weekly seminar with EIME faculty and other professionals engaged in conducting research, measurement, evaluation, or policy analysis projects.

Hours: 0.5 Credit, 1.0 Lecture, 0.0 Lab
Prerequisites: Enrollment in the EIME program.

University Teaching Apprenticeship [EIME-785]

BYU > David O. McKay School of Education > Educational, Inquiry, Measurement, and Evaluation > Course

Mentored experience teaching a university course.

Hours: 3.0 Credit, 0.0 Lecture, 0.0 Lab
Prerequisites: Advisor and department chair's consent.

Department of Educational Leadership and Foundations

BYU > David O. McKay School of Education > Department

Address

Educational Leadership and Foundations
306 MCKB
801-422-4291
edlfsec@byu.edu

Programs

Educational Leadership - EdD [353763]
Educational Leadership - MEd [353770]

Our vision is to improve life conditions and opportunities for individuals, families, and communities worldwide.

Our mission is to improve the equity and quality of teaching and learning environments throughout the world. We accomplish this mission through the integration of research, teaching, and service to strengthen educational opportunities for all people worldwide. This integrated mission is threefold:

1. Explore and expand the knowledge of educational theory, policy, practice, and leadership.
2. Foster the growth of educational leaders of faith and character who possess the requisite knowledge, skills, and dispositions.
3. Build the capacity of individuals, families, communities, states, and nations to identify and solve education problems.

The Department of Educational Leadership and Foundations currently offers these degree programs:

EdD in Educational Leadership
MEd in Educational Leadership/School Leadership Specialization
MEd in Educational Leadership/Education Policy Studies Specialization

EdD in Educational Leadership

The EdD in Educational Leadership program prepares mid-career leaders for advanced leadership positions in educational institutions. It is designed to be completed in three years, and is for students who also work full-time. This program prepares education leaders with scholarly dispositions and skills to enable them to effectively lead, lift, inspire, and educate their colleagues and followers. The program aims to instill in its candidates the desire to make education institutions places of learning that equip students from all backgrounds to be contributing members of the human family.

Graduates are prepared to become:

Collaborative leaders and change agents
Data-driven decision makers
Critical consumers of research
Culturally proficient agents for educational equity
Proficient leaders in education contexts

(Please note that we accept a new cohort on even-numbered years only, such as 2016, 2018, etc.)

MEd in Educational Leadership/School Leadership Specialization

The School Leadership specialization develops competent educational leaders of faith, intellect, and character who have a vision and a compelling sense of purpose for the continuous improvement of schools and enhancement of learning for all. In this graduate program, students will acquire the knowledge and skills to facilitate, motivate, and lead high levels of learning for all students and teachers.

The curriculum prepares students to take the state-required Administrative Praxis Examination and to apply for the Education Leadership License in the state of Utah. Graduates who receive their Utah State licensure can serve as leaders in educational institutions, in positions of responsibility, such as principals, directors, and superintendents in public and private organizations.

There are two track options for the School Leadership emphasis (see department website for more information):

1. Leadership Preparation Program (LPP)—a full-time track
2. Executive School Leadership (ExSL)—a part-time track

The School Leadership specialization is designed to be completed in one to two years; however, students are given five years to complete the MEd program and graduate.

MEd in Educational Leadership/Education Policy Studies Specialization

The Education Policy Studies specialization is a rigorous full-time, two-year program, preparing professionals to contribute to educational change, policy, and research on a local, national, and/or global scale. Students examine educational movements, reforms, outcomes, and controversies using modes of inquiry associated with an array of scholarship fields and disciplines.

The EPS specialization prepares students for successful careers with:

Educational foundations
Private research and development firms
Local and regional school districts
State offices of education
Federal regional education laboratories
The U.S. Department of Education
International development organizations

PhD programs in education, policy, research, measurement, etc.

Program flexibility also allows interdisciplinary collaboration through approved joint degree programs such as the MEd/JD program.

Fax: (801) 422-0196

Chair: Pamela Hallam
Associate Chair and Graduate Coordinator: Donald Baum

Resources & Opportunity

Computer Lab. Computers are available in the McKay School computer lab to provide graduate students access to the several university-licensed software programs, such as SPSS and NVivo to analyze research data. These computers also enable students to search and access materials found online as well as in the Harold B. Lee Library. EdD students will also have access to the library facilities at the University of Utah.
Graduate Student Study Carrels. Graduate student study carrels are available for graduate students who are attending full time and/or working with faculty on research, evaluation, and development projects.

Financial Assistance

Research Assistantships. A limited number of research assistantships are available upon application. These assignments involve working with selected faculty members 10 to 20 hours per week. Assistantships are given for one semester but may be extended following a review of student performance.
Scholarships. Scholarships are available on a limited basis. Students receiving assistantships are not normally given tuition scholarships. Tuition aid is given on the basis of need. Applications should be submitted to the department.

Educational Leadership - EdD (EdD) [353763]

BYU > David O. McKay School of Education > Department of Educational Leadership and Foundations > Program

Application Deadline: March 1

The EdD in Educational Leadership program prepares mid-career leaders for advanced leadership positions in educational institutions. It is designed to be completed in three years, and is for students who also work full-time. This program prepares education leaders with scholarly dispositions and skills to enable them to effectively lead, lift, inspire, and educate their colleagues and followers. The program aims to instill in its candidates the desire to make education institutions places of learning that equip students from all backgrounds to be contributing members of the human family.

Credit hours: 88 credit hours (with up to 36 hours of credit for completion of an appropriate master's or comparable degree), including 39 hours of coursework, 12 dissertation hours and no required electives.
Required EDLF courses:

- 645 (Quantitative Inquiry 1)
- 646 (Qualitative Inquiry 1)
- 655 (Social History of American Education)
- 700 (Strategic and Organizational Leadership)
- 701 (Collaborative Leadership for Change)
- 714 (Multicultural Education)
- 721 (Economics of Education)
- 722 (Constitutional Law and Education)
- 750 (Education Policy and Politics)
- 768 (Philosophy and History of Western Education)
- 776 (Quantitative Inquiry 2)
- 777 (Qualitative Inquiry 2)
- 791R (Doctoral Seminar)
- 799R (Dissertation)

Memorandum of Understanding. Students are required to attend all class sessions. Given that the program is designed for students who are also employed full time, students will provide a memorandum of understanding from their employer agreeing to their attendance at the scheduled course sessions, some of which will occur during the normal work week.
Program of Study: To be submitted by the end of the first semester.
Performance Evaluation. Three times during the academic year, students will be evaluated by the faculty based on their performance and progress in the program.
Comprehensive Examination. The completion of the written comprehensive examination lays the foundation for the dissertation prospectus.

Dissertation. In the first summer term, students will be placed with a dissertation chair to help develop and focus their dissertation research. The dissertation will include the preparation of an article that is ready for submission to a peer-reviewed journal.
Requirements for Minimum Registration. Following admission to the EdD program, the university requires that students complete at least 6 semester hours of approved program credit during each academic year (September 1 to August 31).

For a more detailed description of the EdD program requirements, see the EDLF Department's website and online program handbook.

Required Tests

GRE or GMAT or LSAT

Additional Requirements

1. Master's degree or equivalent
2. Three years' professional experience in a leadership position related to education
3. Resume required

Deadline Notes

Applicants are only admitted during even-numbered years. The deadline for Summer is March 1.

Educational Leadership - MEd (MEd) [353770]

Application Deadline: May 1 - EPSF January 15 - School Leadership

Educational Leadership - MEd/School Leadership Specialization

Educational Leadership - MEd/Education Policy Studies Specialization

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Educational Leadership - MEd/School Leadership Specialization

The School Leadership specialization develops competent educational leaders of faith, intellect, and character who have a vision and a compelling sense of purpose for the continuous improvement of schools and enhancement of learning for all. In this graduate program, students will acquire the knowledge and skills to facilitate, motivate, and lead high levels of learning for all students and teachers.

Students applying for the MEd in School Leadership program have the choice between three tracks.

1. The Leadership Preparation Program (LPP) track - a full-time track that takes one year and one term to complete.
2. The Executive School Leadership (ExSL) track - a part-time track that takes two years to complete.
3. The Accelerated Preparation Program (APP) track - a part-time track designed for students who have already earned a master's degree and who have the option of applying up to nine (9) credit hours from their non-BYU degree to satisfy our MEd degree requirements. The length of the program is determined by the time constraints of each individual student.

Requirements for Degree

Credit hours: 37-39
Required EDLF courses
601 (Leadership for Learning Communities)
610 (Human Resource Administration in Education)
614 (Education of Diverse Populations)
622 (The Law and Education)
627 (Instructional Leadership 1: Principalship Roles)
629 (Instructional Leadership 2: Supervisor's Role in Improving Teaching)
631 (The Curriculum: Theory and Practice)
650 (Education Policy)
668 (Philosophical Foundations of Western Education)
676 (Data-Driven Decision Making 1)
677 (Data-Driven Decision Making 2)
Program of Study. To be submitted by end of first semester.

Administrative Internship. A minimum of **400 hours of administrative internship** (EDLF 688R - Administrative Internship) and all related requirements, including the Reflective Internship Seminar (EDLF 635R).
Internship Leadership Project. As part of the Administrative Internship, students will complete the Internship Leadership Project (ILP), designed to provide the opportunity to apply theory to practice and facilitate the improvement of student learning in a school where they are working as an administrative intern.
Performance Evaluation. Three times during the academic year, students will be evaluated by the faculty based on their performance and progress in the program.
Comprehensive Examination. Students complete the oral and written comprehensive examination upon completion of course requirements.

Requirements for Minimum Registration. Following admission to the MEd program, the University requires that students complete at least 6 semester hours of approved program credit during each academic year (September 1 to August 31).

Requirements for Education Leadership License in Addition to Master's Degree. To become a school site administrator, and for certain district office positions in Utah, an Education Leadership License is required. This license, an endorsement to the teaching certificate, requires a Level II Teaching License, the completion of the Educational Leadership master's degree (including the completion of the administrative internship), and a successful Administrative Praxis exam score. Students completing all licensure requirements may apply to the department for the required letter of recommendation for licensure to be submitted by the department to the Utah State Office of Education.

For a more detailed description of the School Leadership Program requirements, see the EDLF Department's website and online program handbook.

Spring Application Deadline: January 15th

Educational Leadership - MEd/Education Policy Studies Specialization

The Education Policy Studies (EPS) specialization is a rigorous full-time, two-year program, preparing professionals to contribute to educational change, policy, and research on a local, national, and/or global scale. Students examine educational movements, reforms, outcomes, and controversies using modes of inquiry associated with an array of scholarship fields and disciplines.

Requirements for Degree

Credit hours: 39
Required EDLF courses:
621 (Economics of Education)
622 (The Law and Education)
650 (Education Policy)
655 (Social History of Education)
672 (Research Methods)
640 (Quantitative Reasoning 1)
641 (Quantitative Reasoning 2)
Choice of Research Course
9 credits of electives in variety of topics
Capstone (Internship & Project or Thesis)
Program of Study. To be submitted by end of first semester.
Performance Evaluation. Three times during the academic year, students will be evaluated by the faculty based on their performance and progress in the program.
Comprehensive Examination. Students complete the oral and written comprehensive examination upon completion of course requirements.

Applicants are admitted annually and begin in fall semester.

For a more detailed description of the Education Policy Studies requirements, see the EDLF Department's website and online program handbook.

Application Deadline: March 1st and September 15th

Required Test

GRE, or GMAT, or LSAT, or MAT

Additional Requirements

Resume required

Business Administration and Technology Applications in Education [EDLF-674]

BYU > David O. McKay School of Education > Department of Educational Leadership and Foundations > Course

Organizing and managing business affairs in educational institutions. Business and instructional applications of technology in education.

Hours: 2.0 Credit, 2.0 Lecture, 0.0 Lab

Collaborative Leadership for Change [EDLF-701]

BYU > David O. McKay School of Education > Department of Educational Leadership and Foundations > Course

Collaborative leadership theories and practices leading to meaningful change in educational organizations and institutions at the micro through macro levels.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Comparative and International Development Education [EDLF-662]

BYU > David O. McKay School of Education > Department of Educational Leadership and Foundations > Course

Substance and methods of comparative and international development education. How comparisons between systems have implicit in them a theory of comparisons of politics and economics. The role of multilateral aid agencies in influencing the development of schooling.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Constitutional Law and Education [EDLF-722]

BYU > David O. McKay School of Education > Department of Educational Leadership and Foundations > Course

Impact of Constitution on education in America; cases under constitutional law that have influenced policy and practice in the educational system.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Data-Driven Decision Making 1: Concepts and Processes [EDLF-676]

BYU > David O. McKay School of Education > Department of Educational Leadership and Foundations > Course

Identifying problems. Using educational research. Collecting, analyzing, and interpreting data in order to solve problems; to establish fair, collaborative decision-making processes; and to inform continuous school and student improvement.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Data-Driven Decision Making 2: Assessing Outcomes at Multiple Levels [EDLF-677]

BYU > David O. McKay School of Education > Department of Educational Leadership and Foundations > Course

Applying data-driven decision making process to assess outcomes at multiple levels, including student assessment and learning: program and staff evaluation; school performance; community needs and expectations assessment and evaluation.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Dissertation [EDLF-799R]

BYU > David O. McKay School of Education > Department of Educational Leadership and Foundations > Course

Hours: 0.5-18.0 Credit, ARR Lecture, 0.0 Lab
Prerequisites: Departmental consent.

Doctoral Internship [EDLF-788R]

BYU > David O. McKay School of Education > Department of Educational Leadership and Foundations > Course

Practical experience in the state office, local school districts, higher education settings, or other agencies.

Hours: 1.0-6.0 Credit, 0.0 Lecture, 0.0 Lab
Prerequisites: Departmental consent.

Doctoral Seminar [EDLF-791R]

BYU > David O. McKay School of Education > Department of Educational Leadership and Foundations > Course

Hours: 0.5-6.0 Credit, ARR Lecture, 0.0 Lab
Prerequisites: Departmental consent.

Economic Issues in Educational Leadership [EDLF-780]

BYU > David O. McKay School of Education > Department of Educational Leadership and Foundations > Course

Economic benefits of education to country's economy; why education is considered an investment in human capital. Equity and equality of funding education.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Economics of Education [EDLF-621]

BYU > David O. McKay School of Education > Department of Educational Leadership and Foundations > Course

Main concepts that apply economic thinking to education. Overview of literature on the efficiency and effectiveness of educational policies on education outcomes.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Economics of Education [EDLF-721]

BYU > David O. McKay School of Education > Department of Educational Leadership and Foundations > Course

Main concepts that apply economic thinking to education. Overview of literature on the efficiency and effectiveness of educational policies and practices on education outcomes.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Education and International Development [EDLF-661]

BYU > David O. McKay School of Education > Department of Educational Leadership and Foundations > Course

Fundamentals of international development with exposure to major theorists and development paradigms and to modern-day practice of development by bi-lateral and multilateral aid agencies and non-governmental organizations.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Education and Social Change [EDLF-660]

BYU > David O. McKay School of Education > Department of Educational Leadership and Foundations > Course

Educational development and a theoretical study of social change. Topics include secularization, industrialization and education, structural differentiation, and the role of the state in social change.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Education of Diverse Populations [EDLF-614]

BYU > David O. McKay School of Education > Department of Educational Leadership and Foundations > Course

Multicultural issues in educational theory and practice, with special reference to race, ethnicity, gender, and socioeconomic status.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Education Policy [EDLF-650]

BYU > David O. McKay School of Education > Department of Educational Leadership and Foundations > Course

Introduction to the economic and social benefits of education and the development, implementation, and evaluation of federal, state, and local education policy. Specific education policy issues include governance, resource allocation, accountability, diversity, and curriculum.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Education Policy Analysis and Evaluation [EDLF-751]

BYU > David O. McKay School of Education > Department of Educational Leadership and Foundations > Course

This course will address fundamental issues in the analysis and evaluation of education-related policies, examine prominent evaluations that have been conducted on a local, national, or international scale, and engage students in learning how to approach education policy evaluation.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Education Policy and Politics [EDLF-750]

BYU > David O. McKay School of Education > Department of Educational Leadership and Foundations > Course

Educational policy at the state and national levels emphasizing political theory, normative and empirical dimensions, and political factors that shape the policy process, legislation, and practice.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Education, Culture, and Economic Development [EDLF-663]

BYU > David O. McKay School of Education > Department of Educational Leadership and Foundations > Course

Links between education and various aspects of social and economic development. Topics include human capital formation, the issues of education reform, and rates and return to education in the Third World.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Evaluation and Assessment of School Programs [EDLF-665]

BYU > David O. McKay School of Education > Department of Educational Leadership and Foundations > Course

Nature, purpose, and function of evaluating educational programs.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Human and Resource Management for Learning [EDLF-610]

BYU > David O. McKay School of Education > Department of Educational Leadership and Foundations > Course

Introduction to human resource management in educational organizations. Emphasizes issues related to working with people, policies, laws, and procedures for sound personnel administration practices, including job analysis, recruitment, selection, professional development, supervision, performance appraisal, and managing school and district budgets for improved learning.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Independent Research [EDLF-695R]

BYU > David O. McKay School of Education > Department of Educational Leadership and Foundations > Course

Individual research study or project under the direction of a faculty member.

Hours: 0.5-3.0 Credit, 0.0 Lecture, 0.0 Lab
Prerequisites: Departmental consent.

Independent Study [EDLF-694R]

BYU > David O. McKay School of Education > Department of Educational Leadership and Foundations > Course

Study experience in an area of specialization under direction of a faculty member.

Hours: 0.5-3.0 Credit, ARR Lecture, 0.0 Lab
Prerequisites: Departmental consent.

Instructional Leadership 1: Seminar on Principalship Roles [EDLF-627]

BYU > David O. McKay School of Education > Department of Educational Leadership and Foundations > Course

Examining, understanding, and applying organizational theory, strategy, and strategic thinking to the various roles of school leadership in shaping the structures and cultures supportive of student and educator learning.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Instructional Leadership 2: Supervisor's Role in Improving Teaching and Learning [EDLF-629]

BYU > David O. McKay School of Education > Department of Educational Leadership and Foundations > Course

Instructional leadership and school improvement processes in creating and sustaining successful learning communities to improve teaching and learning, including formative instructional supervision, professional development, and action research for school improvement.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Instructional Leadership and Learning Communities [EDLF-729]

BYU > David O. McKay School of Education > Department of Educational Leadership and Foundations > Course

Leading and improving successful teaching and learning through applying theory and practice of instructional leadership in learning communities.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Leadership for Learning Communities [EDLF-601]

BYU > David O. McKay School of Education > Department of Educational Leadership and Foundations > Course

Understanding leadership elements that help schools become high functioning communities of learning.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Master's Internship [EDLF-688R]

BYU > David O. McKay School of Education > Department of Educational Leadership and Foundations > Course

Practical experience in state office, local school districts, higher education, and other agencies.

Hours: 0.5-6.0 Credit, ARR Lecture, ARR Lab
Prerequisites: Departmental consent.

Master's Project [EDLF-698R]

BYU > David O. McKay School of Education > Department of Educational Leadership and Foundations > Course

Hours: 0.5-6.0 Credit, 0.0 Lecture, 0.0 Lab
Prerequisites: Departmental consent.

Master's Thesis [EDLF-699R]

BYU > David O. McKay School of Education > Department of Educational Leadership and Foundations > Course

Hours: 0.5-6.0 Credit, 0.0 Lecture, 0.0 Lab
Prerequisites: Departmental consent.

Multicultural Education [EDLF-714]

BYU > David O. McKay School of Education > Department of Educational Leadership and Foundations > Course

Multicultural issues in educational theory and practice, with special reference to race, ethnicity, gender, socioeconomic status, and various types of exceptionality.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Philosophy and Ethical School Leadership [EDLF-668]

BYU > David O. McKay School of Education > Department of Educational Leadership and Foundations > Course

Major philosophies of education and their influence on educational theory, practice, and leadership.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Philosophy and History of Western Education [EDLF-768]

BYU > David O. McKay School of Education > Department of Educational Leadership and Foundations > Course

Major philosophies of education and their influence on western educational theory and practice.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Qualitative Inquiry 1 [EDLF-646]

BYU > David O. McKay School of Education > Department of Educational Leadership and Foundations > Course

Methods and design of qualitative research in education.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Qualitative Inquiry 2 [EDLF-777]

BYU > David O. McKay School of Education > Department of Educational Leadership and Foundations > Course

Analyzing and interpreting qualitative research in education.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Quantitative Inquiry 1 [EDLF-645]

BYU > David O. McKay School of Education > Department of Educational Leadership and Foundations > Course

Basic quantitative methods and research concepts; conceptualizing and designing research projects considering measurement and representation processes; understanding basic statistical methods, such as hypothesis tests, confidence intervals, linear regression models, and ANOVA models.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Quantitative Inquiry 2 [EDLF-776]

BYU > David O. McKay School of Education > Department of Educational Leadership and Foundations > Course

Applying quantitative methods to evaluation within education; using conceptual frameworks to form research questions and hypotheses, studying the logic and flow of the evaluation process, planning evaluation studies, accessing and analyzing data, reporting results.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Quantitative Reasoning 1 [EDLF-640]

BYU > David O. McKay School of Education > Department of Educational Leadership and Foundations > Course

Statistical reasoning, logic systems, and methodology.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Quantitative Reasoning 2 [EDLF-641]

BYU > David O. McKay School of Education > Department of Educational Leadership and Foundations > Course

Use of analysis of variance, analysis of covariance, and multiple regression/correlation in the analysis of research in education.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: EDLF 640.

Reflective Internship Seminar [EDLF-635R]

BYU > David O. McKay School of Education > Department of Educational Leadership and Foundations > Course

Reflecting individually and collectively on internship experiences; thinking critically about and relating reflections to school leadership theory and best practices.

Hours: 0.5-3.0 Credit, ARR Lecture, 0.0 Lab

Research and Reporting Techniques for Doctoral Dissertation [EDLF-795R]

BYU > David O. McKay School of Education > Department of Educational Leadership and Foundations > Course

Research designs and reporting techniques for planning, conducting, and reporting research for doctoral dissertation.

Hours: 1.0-3.0 Credit, Arr. Lecture, 0.0 Lab
Prerequisites: Departmental consent.

Research Methods [EDLF-672]

BYU > David O. McKay School of Education > Department of Educational Leadership and Foundations > Course

Techniques of research in educational settings.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

School Leadership [EDLF-515R]

BYU > David O. McKay School of Education > Department of Educational Leadership and Foundations > Course

Hours: 0.5-3.0 Credit, 3.0 Lecture, 1.0 Lab

Social History of American Education [EDLF-655]

BYU > David O. McKay School of Education > Department of Educational Leadership and Foundations > Course

Interpretative study of major ideas, values, and practices that influenced development of American education within broader social, political, cultural, and economic context.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Strategic and Organizational Leadership [EDLF-700]

BYU > David O. McKay School of Education > Department of Educational Leadership and Foundations > Course

Theory and practice of leadership, organizational behavior, organization theory and strategy in education contexts, emphasizing theory application.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Strategic Leadership for School Improvement [EDLF-602]

BYU > David O. McKay School of Education > Department of Educational Leadership and Foundations > Course

Theoretical foundations of leadership, organizational theory, strategy, and change. Applying strategic leadership and decision making to effectively align school organizational systems of vision/mission, internal organization, and external environment to facilitate school improvement.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

The Curriculum: Theory and Practice [EDLF-631]

BYU > David O. McKay School of Education > Department of Educational Leadership and Foundations > Course

Theory and practice of curriculum in its various psychological, social, historical, and philosophical contexts.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

The Law and Education [EDLF-622]

BYU > David O. McKay School of Education > Department of Educational Leadership and Foundations > Course

Evolution of American law and its application to American educational systems. Fundamental sources and principles of the law, the judicial structure, language policy issues, and key court cases affecting education at the state and federal levels.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Baum, Donald R

BYU > David O. McKay School of Education > Department of Educational Leadership and Foundations > Faculty

Assistant Professor
Educational Leadership and Foundations
PhD, University of Michigan, 2013
Research Interest: International Educational Policy

Boren, David McKay

BYU > David O. McKay School of Education > Department of Educational Leadership and Foundations > Faculty

Assistant Clinical Professor
Educational Leadership and Foundations
PhD, Brigham Young University, 2010
Research Interest: Educational Administration

Bowles, W Bryan

BYU > David O. McKay School of Education > Department of Educational Leadership and Foundations > Faculty

Associate Clinical Professor
Educational Leadership and Foundations
EdD, University of Utah, 2002
Research Interest: Instructional Leadership; Learning Theory; Teacher evaluation; Human resources; Socialization Theory

Ferrin, Scott Ellis

BYU > David O. McKay School of Education > Department of Educational Leadership and Foundations > Faculty

Professor
Educational Leadership and Foundations
EdD, Harvard University, 1996
Research Interest: School Law; Policy; Politics; Language Policy

Geo-JaJa, MacLeans Anthony

BYU > David O. McKay School of Education > Department of Educational Leadership and Foundations > Faculty

Professor
Educational Leadership and Foundations
PhD, University of Utah, 1986
Research Interest: International Development Education; Global Economic Restructuring; Human Development in Africa; Economics of Education

Hallam, Pamela Rust

BYU > David O. McKay School of Education > Department of Educational Leadership and Foundations > Faculty

Associate Professor
Educational Leadership and Foundations
PhD, University of Utah, 2006
Research Interest: Instructional Leadership; Human Resources; Educational Administration

Hilton, Sterling Clint

BYU > David O. McKay School of Education > Department of Educational Leadership and Foundations > Faculty

Associate Professor
Educational Leadership and Foundations
PhD, Johns Hopkins University, 1996
Research Interest: Longitudinal Data Analysis; Structural Equation Modeling; Statistics Education

Owens, Michael Aaron

BYU > David O. McKay School of Education > Department of Educational Leadership and Foundations > Faculty

Associate Professor
Educational Leadership and Foundations
PhD, University of Utah, 2007
Research Interest: Multicultural and International Education; Evidence-based Decision Making: Educational Organization Leadership

Randall, Earl Vance

BYU > David O. McKay School of Education > Department of Educational Leadership and Foundations > Faculty

Professor
Educational Leadership and Foundations
PhD, Cornell University, 1989
Research Interest: Educational Administration; Social Philosophy; Education Policy

Richards, A Legrand

BYU > David O. McKay School of Education > Department of Educational Leadership and Foundations > Faculty

Associate Professor
Educational Leadership and Foundations
PhD, Brigham Young University, 1982
Research Interest: Philosophy; Foundations

Electrical and Computer Engineering

BYU > Ira A. Fulton College of Engineering and Technology > Department

Address

Electrical and Computer Engineering
450 EB
801-422-1160
grad@ee.byu.edu

Programs

Electrical and Computer Engineering [393572]
Electrical and Computer Engineering [393560]

Electrical engineering has its origins in the study and application of electrical phenomena. However, in recent years the field has grown to embrace a diverse range of problems in applied physics and mathematics. The department currently offers advanced study in four broad areas.

Computer Engineering concentrates on the architecture and implementation of digital logic and computing systems.
Electromagnetics explores the theory, physical properties, and applications of electromagnetic radiation and includes emphases in optics, remote sensing, numerical computation, and microwave systems.
Microelectronics and VLSI focuses on the design and fabrication of micro-electronic circuits for digital and analog applications, including device physics, modeling, processing, and fabrication.
Signals and Systems studies fundamental and applied issues in information processing and includes emphases in communication theory, linear and nonlinear control systems, digital signal processing, and estimation theory.

Specific research activities in these broad areas are described on the department graduate program Web page at http://www.ee.byu.edu/grad/resources

Two degrees are offered through the department: Electrical and Computer Engineering—MS and Electrical and Computer Engineering—PhD.

Chair: Aaron R. Hawkins
Graduate Coordinator: Karl F. Warnick

Resources & Opportunity

The department maintains a variety of facilities to support the diverse research efforts of the graduate faculty. Facilities include:

Extensive PC and Unix workstation computer resources.
Digital signal processing laboratory that includes a variety of software tools, image display and digitizing equipment, and audio processing equipment.
Well-equipped clean-room to support research in semiconductor and electro-optic fabrication.
Microwave remote sensing and integrated systems laboratories.
Electro-optics laboratory that includes lasers and fiber optic research equipment.
Antenna range.
Reconfigurable logic laboratory.
Telemetering laboratory to support research in digital communications and error control coding.
Laboratory to support research in cooperative and autonomous systems.
Facilities for medical imaging research.
Laboratories to support research on chemical and biological systems.

For a description of current research activities associated with each facility, see the department graduate program Web page at http://www.ee.byu.edu/grad/resources

Financial Assistance

The department provides several types of financial assistance for graduate students. All applicants in good standing are considered for financial aid, but priority is given to PhD students. More information may be obtained from the department. No special application form is required. The following types of assistance are available:

Tuition Scholarships. The department offers a limited number of full- and partial-tuition scholarships. All students applying to the program are automatically considered for tuition scholarships.

Research Assistantships. Full-time graduate students in good standing may be awarded research assistantships to assist faculty with externally funded research. Contact individual faculty directly to identify research assistantship opportunities.

Teaching Assistantships. The department employs graduate students as teaching assistants in undergraduate and graduate courses. The department also employs students in a number of department support positions such as computer system administration and laboratory support. Applications for teaching assistant and department student positions are accepted the week prior to the given semester or term. Contact the department for more information about current teaching assistant and department support opportunities.

Electrical and Computer Engineering (MS) [393572]

BYU > Ira A. Fulton College of Engineering and Technology > Electrical and Computer Engineering > Program

The MS degree concentrates on establishing a sound theoretical foundation and on exposing students to advanced developments in electrical and computer engineering. The critical thinking and high level of mathematical and algorithmic facility required by graduate courses allow MS graduates to provide technical leadership and contribute to innovative research and development.

The MS degree typically takes two years to complete and involves a significant experiential learning component. Students work closely with a faculty adviser, develop the research and design tools necessary to participate in the leading-edge developments in the discipline, contribute to published scholarly articles, and report their work in a thesis. Applicants for MS program should indicate their research interests and preferred faculty advisor.

Requirements for Degree
(Thesis Option)

Credit hours: 32.

> Required courses: 24 credit hours of graduate course work as specified by the advisory committee; 2 credit hours of Professional Writing EC En 692; 6 credit hours of thesis EC En 699R.
> Study list: submitted during first semester of graduate study.
> Thesis.
> Final oral examination consisting of public presentation of original research described in thesis.

Requirements for Degree
(Course Work Option)

Credit hours: 32

> Required courses: 30 credit hours of graduate course work as specified by the advisory committee; 2 credit hours of Professional Writing EC En 692.
> Study list: submitted during first semester of graduate study.

Required Tests

GRE

Additional Requirements

1. BS in electrical or computer engineering or similar discipline
2. All applicants must indicate an area of interest for their thesis studies in the letter of intent.
3. Applicants with an international undergraduate degree should upload unofficial transcripts, diplomas, and mark sheets in the Department Documents section for initial review. The application must be submitted for the department to review transcripts. Do this before requesting an evaluation from an agency. Upon recommendation for admission, the evaluation fee will be paid for by the department.

Electrical and Computer Engineering (PhD) [393560]

The PhD program in electrical and computer engineering at Brigham Young University emphasizes high-impact research, publication of scholarly work, and participation in projects funded by the National Science Foundation, Department of Defense, and a variety of other federal agencies, foundations, and companies. PhD students collaborate with a faculty advisor on a topic that may have a lasting influence on theoretical understanding or on professional practice. Coursework is required on advanced topics in electrical and computer engineering. Students may also take courses in related fields, including physics, mathematics, or computer science.

The PhD is primarily a research experience that requires an ability to identify, investigate, formulate, and solve new problems of interest. The results of the work are reported in a dissertation and in the peer-reviewed research literature. PhD graduates are able to act with considerable independence and assume major responsibilities and are prepared for a wide range of career choices in industry, government agencies, and academia.

Requirements for Degree.

Credit hours (56)

Required courses: 36 credit hours of graduate course work as specified by the advisory committee; 2 hours of Professional Writing EC En 692, 18 hours of dissertation EC En 799R.
Study list: submitted during the first semester of graduate study.
Competency exam: completed in the second semester if entering with an MS degree, or in the third semester if entering with a BS degree
Qualifying exam: completed by end of third year.
Advancement to candidacy.
Dissertation.
Final oral examination consisting of public presentation of original research described in dissertation.

Required Test

GRE

Additional Requirements

1. BS in electrical or computer engineering or similar discipline
2. Applicants with an international undergraduate degree should upload unofficial transcripts, diplomas, and mark sheets in the Department Documents section for initial review. The application must be submitted for the department to review transcripts. Do this before requesting an evaluation from an agency. Upon recommendation for admission, the evaluation fee will be paid for by the department.

(EC En-Me En 633) Digital Control Systems [EC EN-673]

Design of digital controllers for dynamical systems, analysis using the z-transform, digital filter implementation, application of transform-based classical design methods, and modern state-space techniques.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: EC En 483 or Me En 431 or equivalent.

(EC En-Me En 733) Linear System Theory [EC EN-773]

Mathematical introduction to time-varying linear systems; state space descriptions, controllability, observability, Lyapunov stability, observer-based control. Design of linear quadratic regulators and infinite-horizon Kalman filters.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: EC En 483 or Me En 431 or equivalent; EC En 671.

(EC En-Me En) Microelectromechanical Systems (MEMS) [EC EN-550]

BYU > Ira A. Fulton College of Engineering and Technology > Electrical and Computer Engineering > Course

Design, fabrication, and applications of MEMS. Mechanical properties governing their design and reliability and the processing technologies used to fabricate them.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: EC En 450 or Me En 372 or equivalent.

(EC En-Me En734) Nonlinear System Theory [EC EN-774]

BYU > Ira A. Fulton College of Engineering and Technology > Electrical and Computer Engineering > Course

Mathematical introduction to nonlinear dynamic systems. Topics include Lyapunov methods, passivity, input-output stability, and nonlinear feedback design.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: EC En 483 or Me En 431 or equivalent; EC En 671.

Active and Passive Filter Design [EC EN-541]

BYU > Ira A. Fulton College of Engineering and Technology > Electrical and Computer Engineering > Course

Design methods for electronic filters based on passive components, active components, and integrated circuit components.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: ECEn 340, 380; or equivalents.

Advanced Digital and Wireless Communications [EC EN-776]

BYU > Ira A. Fulton College of Engineering and Technology > Electrical and Computer Engineering > Course

Linear and nonlinear M-ary modulation and detection, system performance in AWGN and multipath fading environments, equalization, synchronization, spread spectrum.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: EC En 485 or equivalent; EC En 670.

Advanced Digital Systems [EC EN-620]

BYU > Ira A. Fulton College of Engineering and Technology > Electrical and Computer Engineering > Course

Advanced synchronous systems design; CAD and HDLs; systolic arrays; high-speed, low-power digital circuit architectures.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: EC En 320 or proficiency in HDL digital system design.

Advanced Embedded Systems [EC EN-627]

BYU > Ira A. Fulton College of Engineering and Technology > Electrical and Computer Engineering > Course

Topics include embedded system architecture and organization, hardware-software codesign, hardware-software partitioning, co-verification, system-on-a-chip, and real-time systems.

Hours: 3.0 Credit, 3.0 Lecture, 3.0 Lab
Prerequisites: ECEn 425 or 427 or equivalent.

Advanced Mixed-Signal Circuit Design [EC EN-648]

BYU > Ira A. Fulton College of Engineering and Technology > Electrical and Computer Engineering > Course

New converter architectures, advanced measurement and characterization techniques, low-noise timing circuits, VLSI layout and package considerations, bond wire inductance, and wireless applications.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: EC En 548.

Advanced Topics in Signals and Systems [EC EN-689R]

BYU > Ira A. Fulton College of Engineering and Technology > Electrical and Computer Engineering > Course

Subjects that may be offered include: information theory, optimal estimation theory, system identification, advanced image processing, pattern recognition

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Analog CMOS Circuit Design [EC EN-548]

BYU > Ira A. Fulton College of Engineering and Technology > Electrical and Computer Engineering > Course

Design of CMOS comparators, wideband amplifiers, bandgap references; multipliers, PTAT generators, charge-transfer amplifiers, chopper-stabilized amplifiers, and advanced D/A and A/D CMOS architectures.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: ECEn 443 or 445 or equivalent.

Antennas and Propagation for Wireless Communication [EC EN-665]

BYU > Ira A. Fulton College of Engineering and Technology > Electrical and Computer Engineering > Course

Antenna analysis, array theory, and propagation channel models with application to wireless communication systems.

Hours: 3.0 Credit, 2.5 Lecture, 0.0 Lab
Prerequisites: EC En 380, 462; or equivalents.

Applied Computational Electromagnetics [EC EN-563]

BYU > Ira A. Fulton College of Engineering and Technology > Electrical and Computer Engineering > Course

Current theory and practice in numerically solving Maxwell's equations for antenna and circuit design and radar-scattering prediction.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: EC En 462 or equivalent.

Applied Electromagnetics and Optics [EC EN-661]

BYU > Ira A. Fulton College of Engineering and Technology > Electrical and Computer Engineering > Course

Principles and methods of modern electromagnetic wave theory: Green functions, Huygen's principle, diffraction, radiation and scattering. Application of theory including beam propagation and image formation.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: ECEn 462 or equivalent.

CMOS Amplifier Design [EC EN-543]

BYU > Ira A. Fulton College of Engineering and Technology > Electrical and Computer Engineering > Course

Factors affecting performance of MOS devices in analog applications. Design of MOS amplifiers, buffers, and comparators.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: ECEn 443 or 445 or equivalent.

Compilation Strategies for High-Performance Systems [EC EN-625]

BYU > Ira A. Fulton College of Engineering and Technology > Electrical and Computer Engineering > Course

Compilation and synthesis strategies for high-performance hardware/software systems.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: EC En 320 and 521.

Computer Architecture [EC EN-528]

BYU > Ira A. Fulton College of Engineering and Technology > Electrical and Computer Engineering > Course

Architectural analysis and design of computer systems: instruction-level parallelism, memory hierarchy, instruction sets, low-power architecture.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: EC En 424 or equivalent.

Computer Arithmetic [EC EN-621]

BYU > Ira A. Fulton College of Engineering and Technology > Electrical and Computer Engineering > Course

Fundamental principles and development of algorithms for performing arithmetic on digital computers and application-specific processors.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Computer System Reliability [EC EN-523]

BYU > Ira A. Fulton College of Engineering and Technology > Electrical and Computer Engineering > Course

Analysis, modeling, and design of reliable, fault-tolerant computing systems.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: EC En 320, 324, 370.

Detection and Estimation Theory [EC EN-672]

BYU > Ira A. Fulton College of Engineering and Technology > Electrical and Computer Engineering > Course

Sufficiency, completeness; Neyman-Pearson and Bayes detector; maximum likelihood, Bayes, minimum mean square, and linear estimation; Kalman filters; selected topics.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: EC En 370 or equivalent; EC En 670; graduate standing or instructor's consent.

Digital Signal Processing [EC EN-777]

BYU > Ira A. Fulton College of Engineering and Technology > Electrical and Computer Engineering > Course

Advanced theory and applications including optimal statistical processing, adaptive processing, and array processing methods.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: EC En 487 or equivalent; EC En 670, 671; graduate standing or instructor's consent.

Doctoral Dissertation [EC EN-799R]

BYU > Ira A. Fulton College of Engineering and Technology > Electrical and Computer Engineering > Course

Hours: 0.5-9.0 Credit, ARR Lecture, ARR Lab

EC En-Me En 634) Flight Dynamics and Control [EC EN-674]

BYU > Ira A. Fulton College of Engineering and Technology > Electrical and Computer Engineering > Course

Dynamics of flight, stability, and control derivatives, longitudinal and lateral control design, state-space control strategies for aircraft; and unmanned air vehicle applications.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: EC En 483 or Me En 431 or equivalent.

Electromagnetic Wave Theory [EC EN-560]

BYU > Ira A. Fulton College of Engineering and Technology > Electrical and Computer Engineering > Course

Principles and methods of modern electromagnetic wave theory: anisotropic media, dyadic green functions, Huygen's principle, contour integration methods, asymptotic integration. Applications in radiation and scattering.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: EC En 462 or equivalent.

Error-Control Coding [EC EN-775]

BYU > Ira A. Fulton College of Engineering and Technology > Electrical and Computer Engineering > Course

Theory and implementation of block and convolutional codes for error control in digital communication systems. Iterative detection of low-density parity-check codes and turbo codes.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Graduate standing or instructor's consent.

Fundamentals of Patents and Other Intellectual Property [EC EN-595]

BYU > Ira A. Fulton College of Engineering and Technology > Electrical and Computer Engineering > Course

Exploration of the basics of patent law and other areas of intellectual property, including trademarks, trade secrets and copyrights. The fundamentals of protecting and formalizing rights to inventions and other intellectual property, both in the United States and internationally. How to operate in an environment composed of your competitors' intellectual property.

Hours: 1.0 Credit, 1.0 Lecture, 0.0 Lab
Prerequisites: Senior or graduate standing.

Holography [EC EN-663]

BYU > Ira A. Fulton College of Engineering and Technology > Electrical and Computer Engineering > Course

Special topics in electromagnetics. Development of visual and mathematical models for understanding diffraction and interference; creation of Gabor, Denisyuk, Leith-Upatnieks, and Benton holograms; and study of the limitations and opportunities in current approaches to advanced 3D displays.

Hours: 3.0 Credit, 2.0 Lecture, 4.0 Lab
Prerequisites: ECEn 462 or equivalent

Information Theory [EC EN-770]

BYU > Ira A. Fulton College of Engineering and Technology > Electrical and Computer Engineering > Course

Mathematical development of information theory applied to data communications and coding. Topics include entropy, mutual information, channel capacity, data compression, rate distortion theory, etc.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: EC En 370 or equivalent.

Introduction to Algorithm Design [EC EN-521]

BYU > Ira A. Fulton College of Engineering and Technology > Electrical and Computer Engineering > Course

Algorithm analysis, data structures, sorting and searching, graph traversal, weighted graph algorithms, combinational search and heuristic methods, dynamic programming, approximation algorithms, designing algorithms.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: C S 235 and 236 and EC En 324; or equivalents.

Introduction to Digital VLSI Circuits [EC EN-551]

BYU > Ira A. Fulton College of Engineering and Technology > Electrical and Computer Engineering > Course

Design of very large-scale integrated circuits for digital systems. CAD tools used extensively to simulate the design and create and verify mask circuits.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Master's Thesis [EC EN-699R]

BYU > Ira A. Fulton College of Engineering and Technology > Electrical and Computer Engineering > Course

Hours: 0.5-9.0 Credit, ARR Lecture, ARR Lab
Prerequisites: Graduate standing and major professor's consent.

Mathematics of Signals and Systems [EC EN-671]

BYU > Ira A. Fulton College of Engineering and Technology > Electrical and Computer Engineering > Course

Introduction to mathematics of signal processing, communication, and control theory; linear spaces, Eigenvalue and singular-value decompositions, quadratic forms, linear operators, adjoints, dual spaces.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: ECEn 380, Math 313 (or equivalents); graduate standing or instructor's consent.

Medical Imaging and Image Reconstruction [EC EN-576]

BYU > Ira A. Fulton College of Engineering and Technology > Electrical and Computer Engineering > Course

Fundamentals of medical imaging modalities (x-ray, CT, ultrasound, and MRI) from a signals and systems perspective, magnetic resonance physics, medical image reconstruction methods (backprojection, partial-Fourier techniques, parallel imaging, compressed sensing).

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Microwave Remote Sensing [EC EN-568]

BYU > Ira A. Fulton College of Engineering and Technology > Electrical and Computer Engineering > Course

Emphasis on space-borne remote sensing of the earth's atmosphere, land, and oceans. Primary methods and applications for both active (radar) and passive (radiometry).

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Instructor's consent.

Optical Communication Components and Systems [EC EN-562]

BYU > Ira A. Fulton College of Engineering and Technology > Electrical and Computer Engineering > Course

Fiber-optic communication system components and their operating and performance characteristics.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: EC En 462, 466; or equivalents.

Optoelectronic Devices [EC EN-555]

BYU > Ira A. Fulton College of Engineering and Technology > Electrical and Computer Engineering > Course

Design, operation, and fabrication of modern optoelectronic devices, including photodiodes, photovoltaics, LEDs, and lasers.

Hours: 3.0 Credit, 2.0 Lecture, 1.0 Lab
Prerequisites: ECEn 450 or equivalent or instructor's consent.

Physical Optics [EC EN-567]

BYU > Ira A. Fulton College of Engineering and Technology > Electrical and Computer Engineering > Course

Concepts of physical optics. In physical optics the dominant property of light is its wave nature. In this course we use a variety of models, including the scalar wave, electromagnetic wave, and statistical optics models, to examine the phenomena of interference, coherence, polarization, and absorption and dispersion. We learn not only the fundamental aspects of these topics, but also concrete applications that are ubiquitous in the technology of our modern world.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: ECEn 462 or equivalent.

Professional Writing for Electrical and Computer Engineers [EC EN-692]

BYU > Ira A. Fulton College of Engineering and Technology > Electrical and Computer Engineering > Course

Advanced writing concepts. Organizing, writing, and publishing scholarly research.

Hours: 2.0 Credit, 2.0 Lecture, 0.0 Lab

Radar and Communication Systems [EC EN-564]

BYU > Ira A. Fulton College of Engineering and Technology > Electrical and Computer Engineering > Course

Design and performance of radar and communication systems: radar equation ambiguity functions, modulation, signal detection, link budgets, spread spectrum, system design, and performance trade-offs.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: EC En 464 or 485; EC En 360 or 462; or instructor's consent.

Reconfigurable Computing Systems [EC EN-629]

BYU > Ira A. Fulton College of Engineering and Technology > Electrical and Computer Engineering > Course

Introduction to FPGA devices, lab experience developing FPGA-based configurable systems.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: EC En 521; EC En 320 (or proficiency in HDL digital system design).

Robotic Vision [EC EN-631]

BYU > Ira A. Fulton College of Engineering and Technology > Electrical and Computer Engineering > Course

Deriving 3-D geometry and motion from image sequence or multiple digital images: camera modeling, image processing techniques, and geometry models of single and multiple-view systems.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: ECEn 380, Math 313 (or equivalents); proficiency in Matlab or C++.

Special Topics in Computer Systems [EC EN-522R]

BYU > Ira A. Fulton College of Engineering and Technology > Electrical and Computer Engineering > Course

Hours: 0.5-3.0 Credit, ARR Lecture, ARR Lab
Prerequisites: Instructor's consent.

Special Topics in Electromagnetics [EC EN-662R]

BYU > Ira A. Fulton College of Engineering and Technology > Electrical and Computer Engineering > Course

Hours: 0.5-3.0 Credit, ARR Lecture, ARR Lab
Prerequisites: Graduate standing or instructor's consent.

Special Topics in Electronics [EC EN-542R]

BYU > Ira A. Fulton College of Engineering and Technology > Electrical and Computer Engineering > Course

Hours: 0.5-3.0 Credit, ARR Lecture, ARR Lab
Prerequisites: Instructor's consent.

Special Topics in Signals and Systems [EC EN-682R]

BYU > Ira A. Fulton College of Engineering and Technology > Electrical and Computer Engineering > Course

Hours: 0.5-3.0 Credit, ARR Lecture, ARR Lab
Prerequisites: Graduate standing or instructor's consent.

Stochastic Processes [EC EN-670]

BYU > Ira A. Fulton College of Engineering and Technology > Electrical and Computer Engineering > Course

Review of elementary probability, introduction to random processes: definitions, properties, covariance, spectral density, time average, stationarity, ergodicity, linear system relations, mean square estimation, Markov processes.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: EC En 370 and 380 or equivalents; graduate standing or instructor's consent.

VLSI Communication Circuit Design [EC EN-549]

BYU > Ira A. Fulton College of Engineering and Technology > Electrical and Computer Engineering > Course

Frequency synthesizers; low-jitter, voltage-controlled oscillators; high Q circuits; clock regeneration; phase-locked loops; frequency discriminators; and radio-on-a-chip concepts.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: ECEn 443 or 445 or equivalent.

VLSI Systems Design [EC EN-654]

BYU > Ira A. Fulton College of Engineering and Technology > Electrical and Computer Engineering > Course

Design of structured circuit systems for very large-scale integrated semiconductor chips. Architecture of digital VLSI systems.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: EC En 451 or equivalent.

Archibald, James K

BYU > Ira A. Fulton College of Engineering and Technology > Electrical and Computer Engineering > Faculty

Professor
Electrical and Computer Engineering
PhD, University of Washington, 1987
Research Interest: Multi-agent Systems; Computer Vision; Real-time Systems

Beard, Randal Winston

BYU > Ira A. Fulton College of Engineering and Technology > Electrical and Computer Engineering > Faculty

Professor
Electrical and Computer Engineering
PhD, Rensselaer Polytechnic Institute, 1995
Research Interest: Guidance and Control of Micro Air Vehicles; Cooperative Control; Nonlinear Control Theory

Camacho, Ryan M

BYU > Ira A. Fulton College of Engineering and Technology > Electrical and Computer Engineering > Faculty

Associate Professor
Electrical and Computer Engineering
PhD, California Institute of Technology, 2008

Chiang, Shiuhhua

BYU > Ira A. Fulton College of Engineering and Technology > Electrical and Computer Engineering > Faculty

Assistant Professor
Electrical and Computer Engineering
PhD, University of California, Los Angeles, 2013

Goeders, Jeffrey Brant

BYU > Ira A. Fulton College of Engineering and Technology > Electrical and Computer Engineering > Faculty

Assistant Professor
Electrical and Computer Engineering
PhD, University of British Columbia, 2016
Research Interest: Reconfigurable Computing, High-Level Design Methods, Debug, FPGA Architecture and CAD

Harrison, Willie K

Assistant Professor
Electrical and Computer Engineering
PhD, Georgia Institute of Technology, 2012

Hawkins, Aaron R

Professor
Electrical and Computer Engineering
PhD, University of California, Santa Barbara, 1998
Research Interest: Solid-State Device Physics; Semiconductor Processing; Optoelectronics and Photonics; Materials Integration

Hutchings, Brad L

Professor
Electrical and Computer Engineering
PhD, University of Utah, 1992
Research Interest: Reconfigurable Logic; FPGA's VLSI Design

Jeffs, Brian D

Professor
Electrical and Computer Engineering
PhD, University of Southern California, 1989
Research Interest: Signal Processing; Radio Astronomy

Jensen, Michael Allen

Professor
Electrical and Computer Engineering
PhD, University of California, Los Angeles, 1994
Research Interest: Wireless Communications; High-Frequency Circuits; Antennas and Propagation

Lee, Dah Jye

Professor
Electrical and Computer Engineering
PhD, Texas Tech University, 1990
Research Interest: Medical Imaging and Informatics, Machine Vision Applications, and Real-Time Robot Vision

Long, David G

Professor
Electrical and Computer Engineering
PhD, University of Southern California, 1989
Research Interest: Microwave Remote Sensing; Estimation Theory; Radar

Lundrigan, Philip Brandon

BYU > Ira A. Fulton College of Engineering and Technology > Electrical and Computer Engineering > Faculty

Professor
Electrical and Computer Engineering

Mazzeo, Brian A

BYU > Ira A. Fulton College of Engineering and Technology > Electrical and Computer Engineering > Faculty

Associate Professor
Electrical and Computer Engineering
PhD, University of Cambridge, 2008
Research Interest: Semiconductor Modeling: Biosensors; Dielectric Spectroscopy

Nelson, Brent Edwin

BYU > Ira A. Fulton College of Engineering and Technology > Electrical and Computer Engineering > Faculty

Professor
Electrical and Computer Engineering
PhD, University of Utah, 1984
Research Interest: Digital Systems Design and CAD Tools, FPGA's and FPGA-based configurable computing, VLSI design and CAD tools

Nordin, Greg

BYU > Ira A. Fulton College of Engineering and Technology > Electrical and Computer Engineering > Faculty

Professor
Electrical and Computer Engineering
PhD, University of Southern California, 1992
Research Interest: Photonics; Sensors; Nano-Structures

Peterson, Cameron K

BYU > Ira A. Fulton College of Engineering and Technology > Electrical and Computer Engineering > Faculty

Assistant Professor
Electrical and Computer Engineering
PhD, University of Maryland, 2012
Research Interest: Cooperative Control; Detection and Estimation; Autonomy

Rice, Michael

BYU > Ira A. Fulton College of Engineering and Technology > Electrical and Computer Engineering > Faculty

Professor
Electrical and Computer Engineering
PhD, Georgia Institute of Technology, 1991
Research Interest: Digital Communication Theory; Error-Control Coding; Software Radios

Schultz, Stephen Marshall

BYU > Ira A. Fulton College of Engineering and Technology > Electrical and Computer Engineering > Faculty

Professor
Electrical and Computer Engineering
PhD, Georgia Institute of Technology, 1999
Research Interest: Fiber Optics; Integrated Optics; Diffractive Optics

Smalley, Daniel Elijah

BYU > Ira A. Fulton College of Engineering and Technology > Electrical and Computer Engineering > Faculty

Assistant Professor
Electrical and Computer Engineering
PhD, Massachusetts Institute of Technology, 2013

Stirling, Wynn Clair

BYU > Ira A. Fulton College of Engineering and Technology > Electrical and Computer Engineering > Faculty

Professor
Electrical and Computer Engineering
PhD, Stanford University, 1983
Research Interest: Linear System Theory; Estimation and Detection Theory; Control Theory

Warnick, Karl Foster

BYU > Ira A. Fulton College of Engineering and Technology > Electrical and Computer Engineering > Faculty

Professor
Electrical and Computer Engineering
PhD, Brigham Young University, 1997
Research Interest: Microwave Systems; Antenna Design; Electromagnetic Theory; Numerical Methods

Wirthlin, Michael J

BYU > Ira A. Fulton College of Engineering and Technology > Electrical and Computer Engineering > Faculty

Professor
Electrical and Computer Engineering
PhD, Brigham Young University, 1997
Research Interest: Reconfigurable Computing; Fault-Tolerant FPGA Processing; High-Level Synthesis and Compilation

English

BYU > College of Humanities > Department

Address

English
4198 JFSB
801-422-4939
gradenglish@byu.edu

Programs

Creative Writing [553267]
English [553298]

The English Department, as a part of the College of Humanities, offers graduate study devoted to the development of reading, writing, and thinking abilities derived from studying and producing literary and other texts in English. Students study these works in aesthetic, historical, religious, and other contexts, including the theoretical contexts the faculty members bring to the courses they teach. This program makes intensive use of the library and its resources.

The MA in English program enables students to develop knowledge, skills, and attitudes that have application in contemporary society and that are in harmony with the principles of the restored gospel of Jesus Christ. The program may appeal to students who plan to enter such careers as teaching, editing, and writing; to those who seek an advanced liberal arts degree for preparation in library science or public service; to those who plan to go on for a doctorate in English or a related area; and to those who wish to continue studies for personal satisfaction.

The MFA in Creative Writing likewise prepares students as scholars and creative writers for careers in teaching and writing. While the MFA in Creative Writing is widely considered a terminal degree, it can also qualify students interested in additional training for a Ph.D. in Creative Writing.

Each year, around 30 students are admitted to graduate study in our department, with approximately 20 students entering our MA in English program and approximately 10 entering our MFA in Creative Writing program. The average duration for both degree programs is two years.

Chair: Lance E. Larsen
Graduate Coordinator: Paul Westover

Resources & Opportunity

The Department of English utilizes the **Office of Digital Humanities**. This center is especially active in the production of teaching and research materials, particularly those that are computer related.

The Office for the Study of Christian Values in Literature was established in 1980 to affirm the importance of religious and moral values in the creation and study of imaginative literature. It provides both a focus for activity and an encouragement to teachers, writers, scholars, and readers who believe in a value-centered literary tradition.

The Writing Center is available to assist students and faculty in improving their writing skills. Graduate students benefit particularly from critical evaluations of drafts of seminar papers and theses, and those with advanced writing skills may serve as interns in the center.

Faculty research interests are included in the faculty section following the course descriptions.

For a more detailed description of the graduate program requirements, send for a copy of the department's bulletin.

Financial Assistance

Financial assistance is available for this program through the English Department and other agencies in the university. The English Department offers tuition awards for all first- and second-year students.

Admitted students are encouraged to apply for instructorships, teaching and research assistantships, editing internships, and other awards that are provided as a financial and learning resource. The university handles federal student loans.

Creative Writing (MFA) [553267]

Requirements for Degree - MFA in Creative Writing

Core: 14 hours

- Introductory course (ENGL 600): 2 hours
- Theory course (English 617, to be taken in first year): 3 hours
- Three writing workshops (ENGL 667, 668, or 669): 9 hours

Electives: 12 hours

- Two 600-level literature seminars: 6 hours
- Two additional graduate-level courses from the following:
  - 600-level literature seminars
  - 600-level writing workshops
  - ENGL 610: Composition Pedagogy (for students who desire to teach Writing 150): 3 hours
  - ENGL 611R: Studies in Teaching Advanced Composition (taken from a creative writing faculty member for students who desire to teach ENGL 218R: Introduction to Creative Writing, or from a composition faculty member for teaching any of the undergraduate advanced writing courses): 3 hours
  - ENGL 599R: Graduate Internship (by application only) (variable)

Thesis & Oral Exam: 6 hours

- ENGL 699R (should be taken during the second year): 6 hours
- Oral examination of thesis, coursework, and reading list

Note: In special circumstances, up to three credit hours may be taken outside of the English department with advisor approval. Additionally, one 300- or 400-level undergraduate course may count toward the degree with approvals from the graduate advisor and the teacher of the course. Graduate students in such courses will be graded by graduate standards and normally will complete an additional paper or other work beyond the usual course requirements. Courses below the 300-level and correspondence courses cannot count toward a graduate degree.

Required Test

GRE

Additional Requirements

Equivalent of undergraduate English degree
Advanced (upper-division) course in literary criticism
Formal Writing Sample
Creative Portfolio - see department for particulars

English (MA) [553298]

Core: 14 hours

Introductory course (ENGL 600): 2 hours
Theory course (either English 630 or English 613): 3 hours
Graduate seminars: three courses in a coherent, approved program of study: 9 hours

Electives: 12 hours

Two 600-level literature seminars: 6 hours
Two additional graduate-level courses from the following:

- 600-level literature seminars: 3 hours
- 600-level writing workshops: 3 hours
- ENGL 610: Composition Pedagogy (for students who desire to teach Writing 150): 3 hours
- ENGL 611R: Studies in Teaching Advanced Composition (for students who desire to teach the undergraduate advanced writing courses): 3 hours
- ENGL 599R: Graduate Internship (by application only) (variable)

Thesis & Oral Exam: 6 hours

ENGL 699R (should be taken during the second year): 6 hours
Oral examination of thesis, coursework, and reading list

Note: In special circumstances, up to three credit hours may be taken outside of the English department with advisor approval. Additionally, one 300- or 400-level undergraduate course may count toward the degree with approvals from the graduate advisor and the teacher of the course. Graduate students in such courses will be graded by graduate standards and normally will complete an additional paper or other work beyond the usual course requirements. Courses below the 300 level and correspondence courses cannot count toward a graduate degree.

Required Test

GRE

Additional Requirements

1. Writing sample
2. Undergraduate English major or its equivalent
3. Advanced (upper division) course in literary criticism

Academic Internship [ENGL-599R]

BYU > College of Humanities > English > Course

On-the-job training.

Hours: 0.5-9.0 Credit, 0.0 Lecture, 0.0 Lab
Prerequisites: Department chair's consent.

Advanced Technical Writing [ENGL-516]

BYU > College of Humanities > English > Course

Advanced concepts, including literature of technical writing, liaison with technical staff, communication networks, rhetoric of graphics, and teaching and freelancing technical writing.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Engl 316 or instructor's consent.

Composition Pedagogy [ENGL-610]

BYU > College of Humanities > English > Course

Practicum for graduate students teaching First-Year Writing courses.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Composition program approval.

Creative Nonfiction Workshop [ENGL-667R]

BYU > College of Humanities > English > Course

Writing creative nonfiction. Individual consideration of manuscripts.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Engl 317R or 318R; Engl 419R; or instructor's consent.

Creative Writing Theory [ENGL-617R]

BYU > College of Humanities > English > Course

Theories and techniques of creative writers, primarily in fiction, poetry, and creative nonfiction.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Directed Readings [ENGL-590R]

BYU > College of Humanities > English > Course

Individual readings beyond what is offered in the curriculum.

Hours: 1.0-3.0 Credit, Arr Lecture, 0.0 Lab
Prerequisites: Graduate advisory committee approval.

Fiction Workshop [ENGL-668R]

BYU > College of Humanities > English > Course

Writing fiction. Individual consideration of manuscripts.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Engl 318R or 319R; Engl 419R; or instructor's consent

History of Rhetoric [ENGL-612R]

BYU > College of Humanities > English > Course

Major texts, thinkers, and movements of the Western rhetorical tradition from classical antiquity to the present.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Introduction to Graduate Studies [ENGL-600]

BYU > College of Humanities > English > Course

Trends in postgraduate curricula, ideology, pedagogy, and professional publication in language and literature.

Hours: 2.0 Credit, 2.0 Lecture, 0.0 Lab

Master's Thesis [ENGL-699R]

BYU > College of Humanities > English > Course

Hours: 0.5-18.0 Credit, ARR Lecture, ARR Lab

Poetry Workshop [ENGL-669R]

BYU > College of Humanities > English > Course

Writing poetry. Individual consideration of manuscripts.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Engl 319R, 419R; or instructor's consent.

Research in Rhetoric and Composition [ENGL-616R]

BYU > College of Humanities > English > Course

Research methods in rhetoric and composition; evaluation of assumptions, strengths, and limitations of each method; identification of student research topics.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Rhetorical Theory and Criticism [ENGL-613R]

BYU > College of Humanities > English > Course

Interpreting and evaluating rhetorical acts and artifacts, including literature, for the purpose of understanding rhetorical theory and practice.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Seminar in American Literature 1865-1914 [ENGL-627R]

BYU > College of Humanities > English > Course

Texts, trends, and writers from the realistic and naturalistic periods.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Seminar in American Literature 1914-Present [ENGL-628R]

BYU > College of Humanities > English > Course

Texts, trends, and writers from the modern and postmodern eras.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Seminar in American Literature before 1865 [ENGL-626R]

BYU > College of Humanities > English > Course

Texts, trends, and writers from the colonial, Revolutionary, early national, and Romantic periods.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Seminar in British Literature 1660-1830 [ENGL-621R]

BYU > College of Humanities > English > Course

Texts, trends, and writers from the Restoration, the eighteenth century, and the Romantic period.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Seminar in British Literature 1830-Present [ENGL-622R]

BYU > College of Humanities > English > Course

Texts, trends, and writers from the Victorian, modern, and postmodern periods.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Seminar in British Literature before 1660 [ENGL-620R]

BYU > College of Humanities > English > Course

Texts, trends, and writers from the medieval and early modern periods.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Seminar in Drama [ENGL-624R]

BYU > College of Humanities > English > Course

Various approaches to drama.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Seminar in the Novel [ENGL-623R]

BYU > College of Humanities > English > Course

Various approaches to the novel.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Seminar in Transnational Literature [ENGL-629R]

BYU > College of Humanities > English > Course

Texts, trends, and writers from a variety of national and ethnic literary traditions.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Special Topics in Rhetoric and Composition [ENGL-614R]

BYU > College of Humanities > English > Course

Various approaches to rhetoric and composition.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Studies in Folklore [ENGL-640R]

BYU > College of Humanities > English > Course

Directed study of folklore and folkways.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Engl 391 or instructor's consent.

Studies in Teaching Advanced Composition [ENGL-611R]

BYU > College of Humanities > English > Course

Practicum for graduate students training to teach advanced composition courses.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Composition program approval.

Studies in Theme and Form [ENGL-520R]

BYU > College of Humanities > English > Course

Topics vary: literature and film, myth and archetype, science fiction, etc.

Hours: 0.5-3.0 Credit, 3.0 Lecture, 0.0 Lab

Theoretical Discourse [ENGL-630R]

BYU > College of Humanities > English > Course

Major texts, issues, and debates from the history of literary theory.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Engl 451 or 452 or equivalent.

Youth Adult Novel Workshop [ENGL-670R]

BYU > College of Humanities > English > Course

Writing for young adult readers. Individual consideration of manuscripts.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Engl 320R, 419R; or instructor's consent.

Balzotti, Jonathan Mark

BYU > College of Humanities > English > Faculty

Assistant Professor
English
PhD, Iowa State University, 2014
Research Interest: English

Bennion, John Serge

BYU > College of Humanities > English > Faculty

Associate Professor
English
PhD, University of Houston, 1989
Research Interest: Creative Writing; British Novel; Mormon Literature

Burton, Gideon O

Assistant Professor
English
PhD, University of Southern California, 1994
Research Interest: History of Rhetoric; Renaissance Literature; Mormon Criticism and Literature

Christiansen, Nancy L

Associate Professor
English
PhD, University of California, Los Angeles, 1994
Research Interest: History and Theory of Rhetoric; Sixteenth-Century English Literature

Christianson, Frank Quinn

Associate Professor
English
PhD, Brown University, 2004
Research Interest: Twentieth-Century American and Trans-Atlantic Literature

Clark, Gregory D

Professor
English
PhD, Rensselaer Polytechnic Institute, 1985
Research Interest: Rhetorical Theory and Criticism; Early American Literature

Coombs, Dawan Lynn

Assistant Professor
English
PhD, University of Georgia, 2012
Research Interest: Reading Pedagogy, English Education

Crowe, Christopher E

Professor
English
EdD, Arizona State University, 1986
Research Interest: English Education; Adolescent Literature

Cutchins, Dennis R

Associate Professor
English
PhD, Florida State University, 1997
Research Interest: American Literature; Folklore

Cutler, Edward Smith

Associate Professor
English
PhD, University of California, San Diego, 1997
Research Interest: Nineteenth-Century American Literature

Dean, Deborah Marie

Professor
English
PhD, Seattle Pacific University, 1999
Research Interest: English Education; Writing Pedagogy

Duerden, Richard Y

Associate Professor
English
PhD, University of Chicago, 1989
Research Interest: Sixteenth- and Seventeenth-Century English Literature; Literary Theory

Eastley, Aaron Christopher

Associate Professor
English
PhD, University of California, San Diego, 2003
Research Interest: Twentieth-Century and Postcolonial British Literature

Eliason, Eric Alden

Professor
English
PhD, University of Texas, Austin, 1998
Research Interest: Folklore

Esplin, Emron Lee

Associate Professor
English
PhD, Michigan State University, 2008
Research Interest: 19th and 20th Century American Literature; 20th Century Latin American Literature

Eyring, Mary Kathleen

Assistant Professor
English
PhD, University of California, San Diego, 2012
Research Interest: Early American Literature; American Women's Writing and Cultural Productions of the 19th Century; Transatlantic Literature and Print Culture; Disability Studies

Franklin, Joseph Clark

Assistant Professor
English
PhD, Texas Tech University, 2012
Research Interest: Creative Writing and 20th Century American Regionalism

Hall, William Max

Assistant Professor
English
PhD, University of California at Santa Barbara, 2010
Research Interest: 18th Century Poetry, Digital Humanities

Hickman, Trenton L

Associate Professor
English
PhD, State University of New York, Stony Brook, 2000
Research Interest: Twentieth-Century American Literature; Latino Literature; Anglophone Caribbean Literature

Horrocks, Jamie

Associate Professor
English
PhD, Indiana University, 2010
Research Interest: Womens Studies, Victorian-Modernist Era British Literature

Jackson, Brian David

Associate Professor
English
PhD, University of Arizona, 2007
Research Interest: Rhetoric; Composition; Teaching of English

Johnson, Kimberly

Professor
English
PhD, University of California, Berkeley, 2003

Kerr, Jason A

Assistant Professor
English
PhD, Boston College, 2011
Research Interest: British Renaissance, Milton, Bible Studies

Larsen, Lance Eric

BYU > College of Humanities > English > Faculty

Professor
English
PhD, University of Houston, 1993
Research Interest: Creative Writing; American Literature; Contemporary Poetry

Lavers, Michael

BYU > College of Humanities > English > Faculty

Assistant Professor
English
PhD, University of Utah, 2015
Research Interest: Poetry

Lawrence, Alma Keith

BYU > College of Humanities > English > Faculty

Associate Professor
English
PhD, University of Southern California, 1987
Research Interest: Early American Literature; Asian-American Literature

Leman, Peter Daniel

BYU > College of Humanities > English > Faculty

Assistant Professor
English
PhD, UC Irvine, 2011
Research Interest: African Literature, Post-Colonial Literature, Law and Literature

Madden, Patrick Charles

BYU > College of Humanities > English > Faculty

Professor
English
PhD, Ohio University, 2004
Research Interest: Creative Writing; Nonfiction

Mason, Nicholas A

BYU > College of Humanities > English > Faculty

Professor
English
PhD, State University of New York at Stony Brook, 1999
Research Interest: Eighteenth- and Nineteenth-Century British Literature

Matthews, Kristin L

BYU > College of Humanities > English > Faculty

Associate Professor
English
PhD, University of Wisconsin, Madison, 2004
Research Interest: Contemporary American and Cold War Literature

McInelly, Brett Chan

BYU > College of Humanities > English > Faculty

Professor
English
PhD, University of Cincinnati, 2000
Research Interest: British Novel; Postcolonial Theory; Composition Studies

Muhlestein, Daniel K

BYU > College of Humanities > English > Faculty

Assistant Professor
English
PhD, Rice University, 1992
Research Interest: Literary Theory; English Romantic Literature

Ostenson, Jonathan W

BYU > College of Humanities > English > Faculty

Associate Professor
English
PhD, University of Utah, 2010
Research Interest: English Education

Paul, Danette

BYU > College of Humanities > English > Faculty

Associate Professor
English
PhD, Pennsylvania State University, 1996
Research Interest: Rhetoric and Composition; Rhetoric of Science

Perry, Dennis Ralph

BYU > College of Humanities > English > Faculty

Associate Professor
English
PhD, University of Wisconsin, Madison, 1986
Research Interest: Early American Literature; Cinema Studies; Poe Studies

Roberts, Brian R

BYU > College of Humanities > English > Faculty

Associate Professor
English
PhD, University of Virginia, 2008
Research Interest: African American Literature, Late Nineteenth-Century American Literature, American Studies

Rowan, Jamin Creed

BYU > College of Humanities > English > Faculty

Associate Professor
English
PhD, Boston College, 2008
Research Interest: Urban Studies, Late Nineteenth and Twentieth-Century American Literature

Rudy, Jill Terry

BYU > College of Humanities > English > Faculty

Associate Professor
English
PhD, Indiana University, 1997
Research Interest: Folklore

Siegfried, Brandie Renee

BYU > College of Humanities > English > Faculty

Associate Professor
English
PhD, Brandeis University, 1993
Research Interest: Sixteenth- and Seventeenth-Century English Literature; Women's Studies; Literary Theory

Snyder, Phillip A

BYU > College of Humanities > English > Faculty

Associate Professor
English
PhD, University of North Carolina, Chapel Hill, 1988
Research Interest: Twentieth-Century British and American Literature; Autobiography

Stock, David M

BYU > College of Humanities > English > Faculty

Assistant Professor
English
PhD, University of Wisconsin-Madison, 2012
Research Interest: Rhetoric and Writing Studies, Writing Centers/Writing Across the Curriculum, Histories and Pedagogies of Rhetoric

Talbot, John Christopher

BYU > College of Humanities > English > Faculty

Associate Professor
English
PhD, Boston University, 2001
Research Interest: Classics; English Poetry

Taylor, Michael Paul

BYU > College of Humanities > English > Faculty

Assistant Professor
English
PhD, University of British Columbia, 2016

Thorne-Murphy, Leslee

BYU > College of Humanities > English > Faculty

Associate Professor
English
PhD, Brandeis University, 2001
Research Interest: Victorian Literature and Women's Studies

Tuttle, Stephen B

BYU > College of Humanities > English > Faculty

Associate Professor
English
PhD, University of Utah, 2006
Research Interest: Creative Writing

Watts, Jarica Linn

BYU > College of Humanities > English > Faculty

Assistant Professor
English
PhD, University of Utah, 2011
Research Interest: Early 20th Century British Literature, British Modernism

Westover, Paul Aaron

BYU > College of Humanities > English > Faculty

Associate Professor
English
PhD, Indiana University, 2008
Research Interest: British Romanticism

Wickman, Matthew Farr

BYU > College of Humanities > English > Faculty

Professor
English
PhD, University of California, Los Angeles, 2000
Research Interest: Eighteenth-Century British Literature; Literary Theory

Wilcox, Miranda

BYU > College of Humanities > English > Faculty

Associate Professor
English
PhD, Notre Dame University, 2006
Research Interest: Medieval Literature

Young, Bruce Wilson

BYU > College of Humanities > English > Faculty

Associate Professor
English
PhD, Harvard University, 1983
Research Interest: English and American Language, Literature

Exercise Sciences

BYU > College of Life Sciences > Department

Address

Exercise Sciences

106 SFH
801-422-2670
maggie_shibla@byu.edu

Programs

- Athletic Training [663480]
- Exercise Sciences [663467]
- Exercise Sciences [663472]

The Department of Exercise Sciences values the human being as sacred and seeks to strengthen both body and spirit by attaining, advancing, and disseminating knowledge in the disciplines of human exercise and performance, injury and rehabilitation, and wellness while inviting divine inspiration to guide our efforts.

Graduate programs within the Department of Exercise Sciences are designed to provide an atmosphere where increased knowledge and practice prepare students to become leaders in their professions, families, communities, and the world. Instruction takes the form of lectures and laboratory courses, seminars, examinations, independent study, research, and teaching experiences. In addition to working with department faculty, graduate students have the option of performing cross disciplinary research with faculty in nutrition science that research topics of interest to exercise science.

The Department of Exercise Sciences has the following graduate program objectives:

> To develop scholars, researchers, teachers, and professionals in exercise science who can make significant original contributions to the discipline's body of knowledge and integrate, apply, and disseminate the frontiers of exercise science knowledge.

The following degrees are offered through the Department of Exercise Sciences: Exercise Sciences-MS (thesis required); and Exercise Sciences-PhD.

The Department of Exercise Sciences houses the Human Performance Research Center (HPRC). The primary purpose of the HPRC is to support applied and basic research programs of faculty and graduate students on such topics as nutrition and exercise, drugs and exercise, exercise and cardiovascular disease, exercise and weight control, therapeutic modalities and rehabilitation procedures, biomechanics, and other contemporary issues in exercise science.

Department Chair: Allen C. Parcell
Graduate Coordinator: John Tyson Hopkins

Resources & Opportunity

Other resources exist in these areas:

Anatomy & Biomechanics: six cadavers and skeletons. Biomechanics: three-dimensional infra-red motion analysis video system, force plate analysis.

Exercise Biochemistry: blood and muscle biochemistry, gel electrophoresis, muscle histochemistry, DNA and RNA analysis.

Exercise Physiology and Health Promotion: treadmills, bicycle ergometers, body composition analyses (DEXA and Bod Pod), strength testing, electromyography, expired gas analyses.

Athletic Training: two large, well-equipped facilities plus two satellite training rooms located in the Marriott Center and LaVell Edwards football stadium.

For a more detailed description of the graduate program requirements, see the department Web page at http://exsc.byu.edu

Financial Assistance

Exercise Sciences provides six to eight stipends per year (100% tuition waiver plus part-time employment support year) for doctoral students. Some teaching and research assistantships are available for qualified masters students based on faculty and department needs.

Athletic Training (MAT) [663480]

Minimum Program Hours: 36

> Credit hours: Minimum 36 work hours. This is an entry-level master's degree and does not require research or a thesis.

Prerequisites: Graduate with a bachelor's degree in Exercise Sciences or a related field, including all of courses listed below or equivalents: Science of Biology (PDBio 120), Human Anatomy (ExSc 440 and PDBio 220 or equivalent), Essentials in Human Physiology (PDBio 305 or PDBio 362), Exercise Physiology (ExSc 463 and ExSc464 {Lab}), Kinesiology/Biomechanics (ExSc 362), Lifestyle and Chronic Disease Prevention (ExSc 387), College Physics (Physics 105/106/107), College Algebra (Math 110 or higher), College Chemistry (Chem 105/106,107), Statistics (STAT 121), Psychology (PSYCH 111).
Transfer students need to determine equivalents to prerequisite courses
Take all of the following required courses: ExSc 514, 515, 516, 517, 518, 601, 602, 603, 625R, 635, 688R, and 697.
Take the four clinical education courses over four regular fall and winter semesters (8): ExSc 654, 655, 656, and 657.
Complete elective courses approved by your advisory committee to fulfill program requirements. Electives from the following: ExSc 501, 519, 625R, 630, 662, 663, 667, 668, 669, 671, 693R, STAT 511, or other courses as approved by your advisory committee.

1. Letter of intent as outlined on the program MAP which can be found on the Exercise Sciences website under Grad Students
2. Minimum GPA of 3.2 for last 60 semester hours of upper level academic work
3. Resume
4. Applicants desiring the Master of Athletic Training (MAT) must submit supplementary application documents (Technical Standards, Physical Exam, Immunization/Background Check/Drug Screening) and must be ECC (CPR-AED) certified before first semester of MAT
5. Non-native English speakers who are not eligible for an exemption must obtain the minimum required score on any of the English proficiency exams accepted by BYU Graduate Studies.

Exercise Sciences (PhD) [663467]

This program prepares students for leadership at the highest level of their profession. Most students become university or college faculty. Students are prepared in the scientific bases of exercise science, well acquainted with the scientific literature, able to teach college courses, and able to do independent research. Three areas of specialization are available.

Requirements for Degree.

60 credits beyond the bachelor's degree with a minimum of 36 credit hours residence requirement beyond master's degree.
Comprehensive Exam and Dissertation required.
Minimum of 60 hours beyond bachelor's degree in addition to all undergraduate prerequisites. No 100-through 400-level classes apply. All doctoral students are expected to be engaged in a continual program of research during their studies, either original or collaborative, and to present at a regional, national, or international conference or submit a manuscript to a refereed journal. This is in addition to the thesis (or manuscript described above in lieu of a thesis) and dissertation.
PhD students are also encouraged to gain teaching experience by teaching or team-teaching appropriate courses in the undergraduate curriculum.
Exercise sciences skill requirement - 7 credit hours: STAT 512, Statistical Methods for Research 2 (3.0); ExSc 797R, Individual Research and Study in ExSc (4.0) Exercise Sciences Required Seminars - 5 credit hours: ExSc 691, Seminar (1.0); ExSc 693R, Readings Seminar (2); ExSc 751, Doctoral Seminar: Prof & Scholarly Writing (1.0); ExSc 753, Doctoral Seminar: Res & Grantsmanship (1.0)
Dissertation - 18 credit hours: ExSc 799R, Doctoral Dissertation (18.0)

Exercise Physiology

Required courses (11 Hours): ExSc 666, 667, 766, 769
Supporting areas: minimum 19 hours of graduate credit, plus prerequisites, must be included in supporting areas approved by your dissertation committee. Suggested areas include: exercise sciences, physiology and developmental biology, chemistry and biochemistry and microbiology and molecular biology, health/wellness, and nutrition

Health Promotion

Required: (11 Hours from the following): ExSc 640, 669, 671, 673.
Supporting areas: minimum 19 hours of graduate credit, plus prerequisites, must be included in supporting areas approved by your dissertation committee. Suggested areas include: exercise sciences, physiology and developmental biology; chemistry and biochemistry and microbiology and molecular biology, health/wellness, and nutrition

Physical Medicine and Rehabilitation

Required courses (18 Hours): ExSc 560, 625R (12 hours), 668.

Supporting areas: minimum 12 hours of graduate credit, plus prerequisites, must be included in supporting areas approved by your dissertation committee. Suggested areas include: exercise sciences, physiology and developmental biology, chemistry and biochemistry, and microbiology and molecular biology, health/wellness and nutrition

For All Specializations

No more than 9 hours of supporting area course work may be transferred from another university. One member of each student's committee must be from outside the college.
PhD students must register for at least two consecutive 6-hour semesters on the BYU Provo campus.
Dissertation.
Examinations: (A) comprehensive examination (written and oral); (B) oral defense of dissertation.

Required Tests

GRE (minimum 300 and 4.0 on the analytic writing portion)

TOEFL/IELTS if English is not first language

Additional Requirements

Letter of intent
Baccalaureate or Master's degree in Exercise Sciences or related field with competence equivalent to several different classes depending on area of specialization (contact department for details)
Thesis or publishable research manuscript
Foundational science and skill competencies relating to different classes depending on area of specialization (contact department for details)
GPA of 3.5 for last 60 semester hours of upper-level academic work
Resume

Exercise Sciences (MS) [663472]

Areas of specialization: Exercise Sciences, Health Promotion, Exercise Physiology, Athletic Training.

Requirements for Degree

Credit hours: minimum 32-34, with 26-28 being course work hours, plus 6 thesis hours (ExSc 699R) within the following areas of specialization.

Exercise Sciences

Prerequisites: Graduate with a bachelor's degree in Exercise Sciences or a related field, including the majority of courses listed below or equivalents: Human Anatomy (ExSc 440 and PDBio 220 or equivalent), Essentials in Human Physiology (PDBio 305 or PDBio 362), Exercise Physiology (ExSc 463 and ExSc 464 {Lab}), Kinesiology/Biomechanics (ExSc 362), Lifestyle and Chronic Disease Prevention (ExSc 387), Stress Management (ExSc 410), Worksite Health Promotion (ExSc 455), Obesity and Weight Management (ExSc 480), College Physics (Phscs 105/106/107), College Algebra (Math 110 or higher), College Chemistry (Chem 105/106/107), Statistics (STAT 121).
Skill courses (4 hours): Take one of the following STAT 511 or ExSc 630**and** ExSc 691
Thesis (6 hours: ExSc 699R)
Core courses (10-12 hours): Take 4 of the following 5 classes: ExSc 663, ExSc 666, ExSc 667, ExSc 668, ExSc 671
Electives (12 hours): Select a minimum of 12 credit hours from the following (any required class above not taken may be used as an elective): ExSc 560, 625R, 629R, 640, 661, 662, 664, 665, 669, 673, 688R, 693R, 766, 769, PDBio 565, or other courses as approved by your advisory committee (not including prerequisites or deficiencies).

Health Promotion

Prerequisites: Graduate with a bachelor's degree in Exercise Sciences or a related field, including the majority of courses listed below or equivalents: Human Anatomy (ExSc 440 and PDBio 220 or equivalent), Essentials in Human Physiology (PDBio 305 or PDBio 362), Exercise Physiology (ExSc 463 and ExSc 464 {Lab}), Kinesiology/Biomechanics (ExSc 362), Lifestyle and Chronic Disease Prevention (ExSc 387), Stress Management (ExSc 410), Worksite Health Promotion (ExSc 455), Obesity and Weight Management (ExSc 480), College Physics (Physics 105/106/107), College Algebra (Math 110 or higher), College Chemistry (Chem 105/106/107), Statistics (STAT 121).
Skill courses (4 hours): Take one of the following STAT 511 or ExSc 630**and** ExSc 691

Thesis (6 hours: ExSc 699R)
Core courses (10-12 hours): Take 4 of the following 5 classes: ExSc 663, ExSc 666, ExSc 667, ExSc 668, ExSc 671
Electives (12 hours): Select a minimum of 12 credit hours from the following (any required class above not taken may be used as an elective): ExSc 560, 625R, 629R, 640, 661, 662, 664, 665, 669, 673, 688R, 693R, 766, 769, PDBio 565, or other courses as approved by your advisory committee (not including prerequisites or deficiencies).
Recommended electives for this specialization: ExSc 640, 661, 669, 673, 688R.

Exercise Physiology

Prerequisites: Graduate with a bachelor's degree in Exercise Sciences or a related field, including the majority of courses listed below or equivalents: Human Anatomy (ExSc 440 and PDBio 220 or equivalent), Essentials in Human Physiology (PDBio 305 or PDBio 362), Exercise Physiology (ExSc 463 and ExSc 464 {Lab}), Kinesiology/Biomechanics (ExSc 362), Lifestyle and Chronic Disease Prevention (ExSc 387), Stress Management (ExSc 410), Worksite Health Promotion (ExSc 455), Obesity and Weight Management (ExSc 480), College Physics (Physics 105/106/107), College Algebra (Math 110 or higher), College Chemistry (Chem 105/106/107), Statistics (STAT 121).
Skill courses (4 hours): Take one of the following STAT 511 or ExSc 630**and** ExSc 691
Thesis (6 hours: ExSc 699R)
Core courses (10-12 hours): Take 4 of the following 5 classes: ExSc 663, ExSc 666, ExSc 667, ExSc 668, ExSc 671
Electives (12 hours): Select a minimum of 12 credit hours from the following (any required class above not taken may be used as an elective): ExSc 560, 625R, 629R, 640, 661, 662, 664, 665, 669, 673, 688R, 693R, 766, 769, PDBio 565, or other courses as approved by your advisory committee (not including prerequisites or deficiencies).
Recommended electives for this specialization: ExSc 662, 669, 673, 693R, 766, 769, PDBio 565.

Athletic Training

Prerequisites: Graduate with a bachelor's degree in Exercise Sciences or a related field, including the majority of courses listed below or equivalents: Human Anatomy (ExSc 440 and PDBio 220 or equivalent), Essentials in Human Physiology (PDBio 305 or PDBio 362), Exercise Physiology (ExSc 463 and ExSc 464 {Lab}), Kinesiology/Biomechanics (ExSc 362), Lifestyle and Chronic Disease Prevention (ExSc 387), Stress Management (ExSc 410), Worksite Health Promotion (ExSc 455), Obesity and Weight Management (ExSc 480), College Physics (Physics 105/106/107), College Algebra (Math 110 or higher), College Chemistry (Chem 105/106/107), Statistics (STAT 121).
Skill courses (4 hours): Take one of the following STAT 511 or ExSc 630**and** ExSc 691
Thesis (6 hours: ExSc 699R)
Core courses (10-12 hours): Take 4 of the following 5 classes: ExSc 663, ExSc 666, ExSc 667, ExSc 668, ExSc 671
Electives (12 hours): Select a minimum of 12 credit hours from the following (any required class above not taken may be used as an elective): ExSc 560, 625R, 629R, 640, 661, 662, 664, 665, 669, 673, 688R, 693R, 766, 769, PDBio 565, or other courses as approved by your advisory committee (not including prerequisites or deficiencies).
Recommended electives for this specialization: ExSc 560, 625R, 629R, 662, 693R.

Required Tests

GRE (minimum of 300 and 4.0 on the analytic writing portion)

TOEFL/IELTS if English is not first language

Additional Requirements

1. Letter of intent as outlined on the program MAP which can be found on the Exercise Sciences website under academic programs and centers
2. Minimum GPA of 3.2 for last 60 semester hours of upper level academic work
3. Resume
4. Applicants desiring the Athletic Training specialization must be BOC certified or eligible to become BOC certified.

Advanced Athletic Training Lab [EXSC-514]

Advanced athletic training skills, including taping, bracing and splinting, custom-fitted equipment, massage and stretching techniques, and emergency splinting and transport.

Hours: 1.0 Credit, 0.5 Lecture, 0.5 Lab
Prerequisites: MAT or Exercise Science majors only.

Advanced Exercise Physiology: Cardiopulmonary [EXSC-766]

BYU > College of Life Sciences > Exercise Sciences > Course

Cardiovascular and pulmonary physiology, assessments, responses to exercise, and interventions.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Advanced Exercise Physiology: Skeletal Muscle [EXSC-769]

BYU > College of Life Sciences > Exercise Sciences > Course

Effects of acute and chronic exercise on anatomy, physiology, and biochemistry of skeletal muscle.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Chem 481 or equivalent.

Advanced Lifestyle and Chronic Disease Prevention [EXSC-671]

BYU > College of Life Sciences > Exercise Sciences > Course

Managing health risks, particularly those relating to cardiovascular disease, cancer, and obesity.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: ExSc 387 or equivalent.

Advanced Obesity and Weight Management [EXSC-673]

BYU > College of Life Sciences > Exercise Sciences > Course

Etiology, treatment, and prevention of obesity in various populations, emphasizing the role of exercise in weight control programs.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: ExSc 480 or equivalent.

Advanced Topics in Physical Medicine and Rehabilitation [EXSC-625R]

BYU > College of Life Sciences > Exercise Sciences > Course

Topics will be rotated and may include: electrotherapy, ultrasound, and diathermy; cryotherapy; orthotics; clinical and educational administration; functional testing and exercise; neural basis of rehabilitation; strength rehabilitation; joint mobilization and manual therapy; spinal manipulation and mobilization.

Hours: 2.0 Credit, 2.0 Lecture, 0.0 Lab
Prerequisites: ATC, PT, or instructor's consent.

Advanced Worksite Wellness [EXSC-661]

BYU > College of Life Sciences > Exercise Sciences > Course

Management for effectively designing, marketing, implementing, and administering health promotion programs.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: ExSc 455 or equivalent.

Athletic Training Capstone [EXSC-697]

BYU > College of Life Sciences > Exercise Sciences > Course

Synthesizing and integrating classroom and clinical experiences in preparation for BOC exam resulting in certification of athletic trainers.

Hours: 2.0 Credit, 2.0 Lecture, 0.0 Lab
Prerequisites: MAT majors only.

Athletic Training Clinical Education 1 [EXSC-654]

BYU > College of Life Sciences > Exercise Sciences > Course

Laboratory and field experience. First of four Athletic Training specialization and clinical experiences (internships).

Hours: 2.0 Credit, 0.0 Lecture, 2.0 Lab
Prerequisites: MAT majors only.

Athletic Training Clinical Education 2 [EXSC-655]

BYU > College of Life Sciences > Exercise Sciences > Course

Laboratory and field experience. Second of four Athletic Training specialization and clinical expectations experiences (internships).

Hours: 2.0 Credit, 0.0 Lecture, 2.0 Lab
Prerequisites: MAT majors only.

Athletic Training Clinical Education 3 [EXSC-656]

BYU > College of Life Sciences > Exercise Sciences > Course

Laboratory and field experience. Third of four Athletic Training specialization and clinical expectations experiences (internships).

Hours: 2.0 Credit, 0.0 Lecture, 2.0 Lab
Prerequisites: MAT majors only.

Athletic Training Clinical Education 4 [EXSC-657]

BYU > College of Life Sciences > Exercise Sciences > Course

Laboratory and field experience. Fourth of four Athletic Training specialization and clinical expectations experiences (internships). Prepares students to practice as certified athletic trainers.

Hours: 2.0 Credit, 0.0 Lecture, 2.0 Lab
Prerequisites: MAT majors only.

Athletic Training Internship [EXSC-688R]

BYU > College of Life Sciences > Exercise Sciences > Course

Additional credit hours or fifth semester for athletic training clinical education experience or immersive internship experience for MAT students.

Hours: 1.0-9.0 Credit, 0.0 Lecture, ARR Lab
Prerequisites: MAT majors only.

Athletic Training Practicum [EXSC-629R]

BYU > College of Life Sciences > Exercise Sciences > Course

Academic and practical application of athletic training skills in the training room setting.

Hours: 1.0-6.0 Credit, 0.0 Lecture, ARR Lab

Biomechanical Modeling [EXSC-664]

BYU > College of Life Sciences > Exercise Sciences > Course

Learn to use advanced biomechanics software to model, analyze, and interpret human movement. Create models of the human skeleton from motion capture data, represent motion in three dimensions using Euler angles, and perform inverse dynamics.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: ExSc 362 or equivalent.

Clinical and Educational Administration [EXSC-625R]

BYU > College of Life Sciences > Exercise Sciences > Course

Administration and management practices and issues in athletics, athletic training, medicine, and various education settings. Ethical, moral legal, communication, and professional etiquette are core concepts discussed.

Hours: 2.0 Credit, 2.0 Lecture, 0.0 Lab

Computer Programming for Kinesiology [EXSC-665]

BYU > College of Life Sciences > Exercise Sciences > Course

Course designed to teach students to manage the large amounts of data collected during various analyses of human movement through computer programming. Students will also learn how to create their own software for data analysis.

Hours: 0.0-3.0 Credit, 3.0 Lecture, 0.0 Lab

Cryotherapy [EXSC-625R]

BYU > College of Life Sciences > Exercise Sciences > Course

Hours: 2.0 Credit, 2.0 Lecture, 0.0 Lab

Diagnostic Testing [EXSC-625R]

BYU > College of Life Sciences > Exercise Sciences > Course

Students will gain an understanding of the use and purpose of clinical research modalities available for research in Exercise Sciences (i.e., EMG, ultrasound/Doppler, nerve conduction velocity, sensory testing, muscle stimulation/TENS, Isothermix temperature measures, etc.).

Hours: 2.0 Credit, 2.0 Lecture, 0.0 Lab
Prerequisites: ATC, PT, or instructor's consent.

Doctoral Dissertation [EXSC-799R]

BYU > College of Life Sciences > Exercise Sciences > Course

Students demonstrate significant oral and written communication skills and research competencies through conceiving, proposing, and defending a dissertation.

Hours: 1.0-18.0 Credit, ARR Lecture, ARR Lab

Doctoral Seminar: Professional and Scholarly Writing [EXSC-751]

BYU > College of Life Sciences > Exercise Sciences > Course

This class is designed to teach PhD students the essentials of writing good biomedical manuscripts for publication in appropriate scientific journals.

Hours: 1.0 Credit, 1.0 Lecture, 0.0 Lab

Doctoral Seminar: Research and Grantsmanship [EXSC-753]

BYU > College of Life Sciences > Exercise Sciences > Course

This class is designed to teach PhD students how to develop a research grant proposal focusing on appropriate structure and scientific content.

Hours: 1.0 Credit, 1.0 Lecture, 0.0 Lab

Electrotherapy, Ultrasound, and Diathermy [EXSC-625R]

BYU > College of Life Sciences > Exercise Sciences > Course

The history, theory, evidence-based research and application of several therapeutic modalities used in athletic training, physical therapy, and occupational therapy. Topics include: deep heating modalities (ultrasound and diathermy); electrotherapy (TENS, IFC, NMES, PENS, HVPC, iontophoresis).

Hours: 2.0 Credit, 2.0 Lecture, 0.0 Lab

Evidence-Based Practice [EXSC-635]

BYU > College of Life Sciences > Exercise Sciences > Course

Focus on research, both from the clinical involvement or consumer and the researchers' perspectives. Developing a clinical question and finding supporting evidence is the key to better outcomes. Patient outcome measures will be learned, analyzed and practiced.

Hours: 2.0 Credit, 2.0 Lecture, 0.0 Lab
Prerequisites: MAT majors only.

Exercise Physiology [EXSC-666]

BYU > College of Life Sciences > Exercise Sciences > Course

Adjustments made by the body to accommodate physical activity.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: ExSc 463 or equivalent.

Exercise Testing and Prescription [EXSC-669]

BYU > College of Life Sciences > Exercise Sciences > Course

Exercise testing and interpretation. Exercise prescription for healthy children and adults, athletes, and various clinical and special populations.

Hours: 2.0 Credit, 1.0 Lecture, 2.0 Lab

Functional Testing and Exercise [EXSC-625R]

BYU > College of Life Sciences > Exercise Sciences > Course

Students will gain detailed understanding of how daily functional movement patterns and regular functional exercise contribute to optimal levels of functional fitness and promote management and reduction of musculoskeletal pain, prevention of musculoskeletal injury, rehabilitation of musculoskeletal injury, and enhanced athletic performance. Students will learn essential concepts and principles regarding functional movement assessment and how to accurately monitor changes in functional fitness across time.

Hours: 2.0 Credit, 2.0 Lecture, 0.0 Lab

Graduate Athletic Training 1 [EXSC-602]

BYU > College of Life Sciences > Exercise Sciences > Course

Review of the practice of athletic training, from professional organizations, legal and ethical foundations, care of injury ranging from emergencies to orthopedic evaluation and systemic pathology.

Hours: 2.0 Credit, 2.0 Lecture, 0.0 Lab
Prerequisites: MAT majors only.

Graduate Athletic Training 2 [EXSC-603]

BYU > College of Life Sciences > Exercise Sciences > Course

The practice of athletic training from professional and legal behavior to care of injury ranging from policies and procedures to orthopedic evaluation.

Hours: 2.0 Credit, 2.0 Lecture, 0.0 Lab
Prerequisites: MAT majors only.

Graduate Internship: Practicum [EXSC-688R]

BYU > College of Life Sciences > Exercise Sciences > Course

Field experience for health promotion graduate students (required); 50 hours of service in approved organization required per credit hour. Graduate students in other emphases may take this class with instructor's consent.

Hours: 1.0-9.0 Credit, 0.0 Lecture, ARR Lab

Health Promotion Practicum [EXSC-688R]

BYU > College of Life Sciences > Exercise Sciences > Course

Hours: 1.0-9.0 Credit, 0.0 Lecture, ARR Lab

Individual Research and Study in Exercise Sciences [EXSC-797R]

BYU > College of Life Sciences > Exercise Sciences > Course

Individual research mentored by Exercise Sciences faculty. Number of credits is based on hours worked per week under contract.

Hours: 1.0-9.0 Credit, ARR Lecture, ARR Lab
Prerequisites: Undergraduate major in exercise sciences; matriculation for graduate study in the department.

Joint Mobilization and Manual Therapy [EXSC-625R]

BYU > College of Life Sciences > Exercise Sciences > Course

The history, theory, evidence-based research, and application of joint mobilization of the ankle, knee, hip, shoulder, elbow and wrist joints; and positional release therapy.

Hours: 2.0 Credit, 2.0 Lecture, 0.0 Lab

Laboratory Methods and Procedures [EXSC-667]

BYU > College of Life Sciences > Exercise Sciences > Course

Basic techniques and procedures used in human performance laboratories.

Hours: 2.0 Credit, 1.0 Lecture, 2.0 Lab
Prerequisites: ExSc 363 or equivalent; 666 or concurrent registration.

Master's Thesis [EXSC-699R]

BYU > College of Life Sciences > Exercise Sciences > Course

Students demonstrate significant oral and written communication skills and research competencies through conceiving, proposing, and defending a thesis.

Hours: 1.0-9.0 Credit, ARR Lecture, ARR Lab

Mechanical Spinal Impairment and Mobilization [EXSC-625R]

BYU > College of Life Sciences > Exercise Sciences > Course

Study of human spinal motion and function in relation to manual therapy techniques used to restore spinal mechanics.

Hours: 2.0 Credit, 2.0 Lecture, 0.0 Lab

Medical Issues in Athletic Training [EXSC-519]

BYU > College of Life Sciences > Exercise Sciences > Course

Discussion of current medical issues in athletic training with guest lectures by medical specialists from the community.

Hours: 1.0 Credit, 1.0 Lecture, 0.0 Lab
Prerequisites: EXSC 320

Motion Analysis Techniques [EXSC-662]

BYU > College of Life Sciences > Exercise Sciences > Course

Analysis of human movement using 2D and 3D kinematic and kinetic descriptions and models of motion based on 3D video and force plate techniques.

Hours: 2.0 Credit, 2.0 Lecture, 0.0 Lab
Prerequisites: ExSc 362 or equivalent.

Musculoskeletal Pathophysiology [EXSC-625R]

BYU > College of Life Sciences > Exercise Sciences > Course

Students will gain a detailed understanding of the physiologic basis of musculoskeletal tissue injury. The class will focus on the process of inflammation and on skeletal muscle, tendon, ligament, bone and cartilage response to injury.

Hours: 2.0 Credit, 2.0 Lecture, 0.0 Lab
Prerequisites: ATC, PT, or instructor's consent.

Neural Basis of Rehabilitation [EXSC-625R]

BYU > College of Life Sciences > Exercise Sciences > Course

Facilitating the discussion and knowledge of neuromechanics associated with orthopedic injury and rehabilitation. Becoming familiar with research in the area of neuromechanics; critical evaluation of such.

Hours: 2.0 Credit, 2.0 Lecture, 0.0 Lab

Neuromechanical Signal Collection and Processing [EXSC-663]

BYU > College of Life Sciences > Exercise Sciences > Course

Focus will be given to processing and interpretation of neuromechanical data, with an emphasis on electgromyography and ground reaction force data.

Hours: 2.0 Credit, 1.0 Lecture, 2.0 Lab

Orthopaedic Anatomy [EXSC-668]

BYU > College of Life Sciences > Exercise Sciences > Course

Advanced regional musculoskeletal anatomy. Students dissect cadavers.

Hours: 4.0 Credit, 3.0 Lecture, 2.0 Lab
Prerequisites: PDBio 220, ExSc 390; or equivalents.

Orthopedic Evaluation 1: Lower Extremities [EXSC-516]

BYU > College of Life Sciences > Exercise Sciences > Course

Advanced principles of lower-extremity injury evaluation; evaluation techniques for the lower extremities.

Hours: 3.0 Credit, 2.0 Lecture, 1.0 Lab
Prerequisites: MAT majors only.

Orthopedic Evaluation 2: Upper Extremities and Trunk [EXSC-517]

BYU > College of Life Sciences > Exercise Sciences > Course

Advanced principles of injury evaluation; evaluation techniques for the upper extremities and trunk.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: MAT majors only.

Pathophysiology for the Athletic Trainer [EXSC-501]

BYU > College of Life Sciences > Exercise Sciences > Course

Foundational understanding of the physiology underlying common systemic diseases. Recognize, evaluate and differentiate common systemic diseases.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Exercise Science or MAT majors.

Pharmacology in Athletic Training [EXSC-601]

BYU > College of Life Sciences > Exercise Sciences > Course

Foundational concepts in pharmacology and pharmcological interventions for students in a variety of allied health professions. Specifically tailored to the Athletic Training master's student.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: MAT majors only.

Physical Activity and Health [EXSC-640]

BYU > College of Life Sciences > Exercise Sciences > Course

Role of physical activity and fitness in the prevention and reversal of disease, including type 2 diabetes, heart disease, cancer, osteoporosis, etc., and in the promotion of health.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: ExSc 463, 464; or equivalents.

Readings Seminar [EXSC-693R]

BYU > College of Life Sciences > Exercise Sciences > Course

Searching, critiquing, and interpreting scientific literature with goal of conducting scientific research.

Hours: 1.0 Credit, 0.0 Lecture, 2.0 Lab

Research Methods in Exercise Sciences [EXSC-630]

BYU > College of Life Sciences > Exercise Sciences > Course

Understanding, designing, and conducting research, including analysis of data using common statistical techniques.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Seminar [EXSC-691]

BYU > College of Life Sciences > Exercise Sciences > Course

Orientation to graduate work in the exercise sciences.

Hours: 1.0 Credit, 1.0 Lecture, 0.0 Lab

Strength Rehabilitation [EXSC-625R]

BYU > College of Life Sciences > Exercise Sciences > Course

Overview of different strength rehabilitation methods (and their history); examining their theoretical background and actual practice. Enhancing skills of critically reviewing literature.

Hours: 2.0 Credit, 2.0 Lecture, 0.0 Lab

Therapeutic Interventions 1, Modalities [EXSC-515]

BYU > College of Life Sciences > Exercise Sciences > Course

Principles of therapeutic interventions: healing, hydrotherapy, massage, traction, radiant energy, heat, cold, electrotherapy and rehabilitation. Application of healing and therapeutic modality theories to injured athletes and physically active individuals.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: MAT majors only.

Therapeutic Interventions 2, Rehabilitation [EXSC-518]

BYU > College of Life Sciences > Exercise Sciences > Course

Knowledge in and application of rehabilitation theories with regards to therapeutic exercise for injured and uninjured physically active individuals.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: MAT majors only.

Bailey, Bruce W

BYU > College of Life Sciences > Exercise Sciences > Faculty

Associate Professor
Exercise Sciences
PhD, University of Kansas, 2005
Research Interest: Health Promotion

Bruening, Dustin Andrew

BYU > College of Life Sciences > Exercise Sciences > Faculty

Assistant Professor
Exercise Sciences
PhD, University of Delaware, 2009
Research Interest: Biomechanics and Movement Science

Davidson, Lance E

BYU > College of Life Sciences > Exercise Sciences > Faculty

Assistant Professor
Exercise Sciences
PhD, Queens University, 2007
Research Interest: Exercise Physiology

Draper, David O

Professor
Exercise Sciences
EdD, Northern Illinois University, 1988
Research Interest: Athletic Training

Feland, Jeffrey Brent

Associate Professor
Exercise Sciences
PhD, PT, Brigham Young University, 1999
Research Interest: Anatomy; Therapeutic Exercise; Rehabilitation

George, James David

Associate Professor
Exercise Sciences
PhD, Arizona State University, 1995
Research Interest: Exercise and Wellness

Gifford, Jayson R

Assistant Professor
Exercise Sciences
PhD, University of Utah, 2015
Research Interest: Exercise Physiology

Hager, Ronald L

Associate Professor
Exercise Sciences
PhD, Arizona State University, 1997
Research Interest: Motor Control; Children's Physical Activity

Hopkins, Jon Tyson

Professor
Exercise Sciences
PhD, Indiana State University, 2000
Research Interest: Athletic Training

Hunter, Iain

Professor
Exercise Sciences
PhD, Oregon State University, 2001
Research Interest: Kinesiology; Biomechanics

Hyldahl, Robert Douglas

Assistant Professor
Exercise Sciences
PhD, University of Massachusetts Amherst, 2011
Research Interest: Athletic Training, Exercise Physiology

Johnson, Aaron W

Associate Professor
Exercise Sciences
PhD PT, Brigham Young University, 2007
Research Interest: Anatomy; Rehabilitation; Therapeutic Exercise

LeCheminant, James Derek

Associate Professor
Exercise Sciences
PhD, University of Kansas, 2005
Research Interest: Health Promotion

Mack, Gary W

Professor
Exercise Sciences
PhD, University of Hawaii, 1984
Research Interest: Biomedical Sciences

Mitchell, Ulrike Hildegard

Associate Professor
Exercise Sciences
PhD, PT, Brigham Young University, 2005
Research Interest: Anatomy; Rehabilitation; Therapeutic Exercise

Parcell, Allen Clive

Professor
Exercise Sciences
PhD, Ball State University, 1998
Research Interest: Exercise Physiology

Ridge, Sarah Elizabeth Trager

Assistant Professor
Exercise Sciences
PhD, University of Delaware, 2010
Research Interest: Biomechanics

Seeley, Matthew K

BYU > College of Life Sciences > Exercise Sciences > Faculty

Associate Professor
Exercise Sciences
PhD, University of Kentucky, 2006
Research Interest: Exercise Science; Biomechanics

Tucker, Larry Allan

BYU > College of Life Sciences > Exercise Sciences > Faculty

Professor
Exercise Sciences
PhD, Southern Illinois University, 1981
Research Interest: Health Promotion; Research Methods

Vehrs, Pat Roy

BYU > College of Life Sciences > Exercise Sciences > Faculty

Associate Professor
Exercise Sciences
PhD, Brigham Young University, 1991
Research Interest: Exercise Physiology

Family Life

BYU > College of Family, Home, and Social Sciences > Department

Address

Family Life
2086 JFSB
801-422-2060
mfhdgrad@byu.edu; mftptsec@byu.edu

Programs

- Marriage and Family Therapy [733862]
- Marriage and Family Therapy [733863]
- Marriage [735660]
- Marriage [735665]

The goal of the graduate programs in the School of Family Life is to provide education that teaches students to conduct research that contributes to the understanding and enhancement of human development and marriage and family relationships. In addition, the graduate programs will educate students in the prevention and intervention that promotes quality family living across generations. The graduate programs in the school are noted for contributions in marriage preparation, family studies, social development, and marriage and family therapy.

Four degrees are associated with the School of Family Life: Marriage, Family, and Human Development MS; Marriage, Family, and Human Development PhD; Marriage and Family Therapy MS; Marriage and Family Therapy PhD.

Marriage and Family Therapy Program
Phone: (801) 422-5680
Address: 234 TLRB, Provo, UT 84602-6710
Web site: http://mft.byu.edu/

Marriage and Family Therapy Graduate Coordinator: Jason Whiting

Marriage, Family and Human Development Program
Phone: (801) 422-2060
Address: 2086 JFSB, Provo, UT 84602
Web site: http://mfhd.byu.edu/

Marriage, Family, and Human Development Graduate Coordinator: Loren Marks

Director: Alan Hawkins

Resources & Opportunity

Certified Family Life Educator Program. Students in the School of Family Life may enhance their graduate programs by taking course work that qualifies them for provisional status as a certified family life educator (CFLE). This is a nationally recognized credential given by the National Council on Family Relations for professionals who specialize in teaching and enrichment of marriage and family relationships. The graduate programs in the School of Family Life have been approved by the National Council on Family Relations as offering a quality curriculum that fulfills many of the CFLE requirements.

Family Studies Center. An interdisciplinary research institute focusing on studies related to all aspects of the family, the center encourages and supports research on family-related topics ranging from prenatal development to problems of aging. Many of the faculty in the college are actively engaged in such research and receive support from the center. Activities include providing grants, research assistance, conferences on special topics every two years, and outreach to bring valuable information on strengthening families to both families and family practitioners.

Comprehensive Clinic. The Comprehensive Clinic at Brigham Young University is a unique interdisciplinary training and research facility housing the finest video and computer facilities available and a staff of skilled technicians and secretaries to support graduate student and faculty research. The clinic currently functions as a training facility for an AAMFT-approved marriage and family therapy PhD and for MS training programs. In addition, the clinic provides the university and the broader geographical community with mental health services involving between 200 and 250 clients each week.

Family, Home, and Social Sciences Computing Center. The center assists faculty and students with social science data processing and other computing needs on mainframe and personal computers. Technical support and consultation services for both statistics and graphics are available to students working on research projects, theses, and dissertations.

Child and Family Laboratories. These excellent facilities provide a practicum setting in which graduate students develop skills in conducting and interpreting research involving small children.

The School of Family Life also provides additional research and academic support to family life programs through the**Camilla Eyring Kimball Chair of Home and Family Life.**

Financial Assistance

The programs offer graduate research and teaching assistantships, supplementary awards and scholarships, and internships as aid. Once admitted to the program, the student will receive specific information regarding their funding package.

Marriage and Family Therapy (MS) [733862]

The marriage and family therapy program offers the Master of Science degree as a two-year program. The purpose of this degree is to prepare graduate students to engage in marriage and family therapy practice in the areas of: (a) theoretical competence, (b) clinical competence, and (c) research competence, with an understanding of multicultural diversity. More specifically, at the end of their program students will (a) be able to pass the Association of Marital and Family Therapy Regulatory Boards (AMFTRB) National Licensing Exam, (b) be effective clinicians and employable as interns, and (c) be able to meet the academic and clinical requirements for the associate/intern MFT license in Utah. Our intent is to prepare the students to function in a wide variety of MFT settings. The curriculum is based on state licensure/certification requirements and is accredited by the Commission on Accreditation of the American Association for Marriage and Family Therapy. The master's degree is the basic educational credential for independent practice in marriage and family therapy. It also prepares students for doctoral study. In cases where students wish to complete both their M.S. and Ph.D. studies at BYU, they must be admitted to and successfully complete the M.S. degree program before applying to the Ph.D. program.

Requirements for Degree.

During the first two semesters of study, a student in consultation with her/his graduate advisor will commit to completing either the research track (recommended for those planning to pursue doctoral study) or the clinical track.

Research Track

Credit hours (62): minimum 56 course work hours plus 6 thesis hours (699R).
Required courses: MFT 600, 605, 625, 630, 645, 649, 650, 651, 652, 653, 654, 655R (17 hours), 656, 663, 699R (6 hours).
Clinical requirement: 500 hours of direct face to face client experience.
Thesis including oral defense of thesis.

Clinical Track

Credit hours (62): minimum 56 course work hours plus 6 project hours (699R).
Required courses: MFT 600, 605, 625, 630, 645, 649, 650, 651, 652, 653, 654, 655R (17 hours), 656, 663, 698R (6 hours).
Clinical requirement: 500 hours of direct face to face client experience.
Clinical presentation.

Required Test

GRE

Additional Requirements

Applicants should upload a bulleted list of the following experiences in the department documents section of the application:

Clinical and human services experience (do not include LDS mission experiences here).
Research experience.

A video interview (you will receive instructions after submission of application)

Background check is required after admission

BYU MFT Programs Admissions Guidelines

Please read over the MFT program mission statement and Admissions Guidelines prior to completing your application. Within your statement of intent, please explain how you would contribute to the BYU MFT mission.

MFT Programs Mission Statement

In harmony with our sponsoring organization (i.e., The Church of Jesus Christ of Latter-Day Saints) and the mission/aims of Brigham Young University, the Marriage and Family Therapy (MFT) programs focuses on "balanced development" in all student growth areas. This development is carried out in an environment of compassion, inclusion and diversity in order to prepare students to be a healing influence in a world struggling to create safe and meaningful relationships. Both programs utilize a relational perspective (regarding the practice and science of healing) to improve the well-being of individuals, couples, and families. Finally, we strive to be an international leader in process research in order to understand how change occurs and to extend our healing influence beyond campus borders.

In fulfilling our mission statement, the MFT program is designed to fulfill the mission and aims of BYU, as an educational organization (https://aims.byu.edu/), including the creation of an "Enriched Learning Environment" (https://multicultural.byu.edu/node/whatwedo). Therefore, our admission decisions will be based largely upon applicants' capacities to contribute to the program and their ability to grow in the following areas:

1. *To intellectually enlarge* - Applicant capacity to contribute in terms of intellectual enlargement will be assessed largely through GRE scores, GPA, letters of recommendation, and the personal statement description of their educational path.
2. *To spiritually strengthen* - Applicant potential to contribute to the programs' spiritually-strengthening atmosphere will be assessed through the personal statement, video responses, any personal/professional experience (work/volunteer service presented on the resume), and their ecclesiastical endorsement.
3. *To build character* - Applicant potential to contribute to a character-building environment will be measured largely through the personal statement (in terms of a description of jobs they have had, how they financed their education, personal struggles they are dealing with), letters of recommendations, and the video responses.
4. *Capacity for lifelong service and learning* - This will be measured through the personal statement (description of their achievements in this area to date), letters of recommendation, and any personal/professional experience and service described in the resume.
5. *Enriched Learning environment* - This will be measured largely through the video responses, personal statement, and personal experiences related to gender, ethnic, racial and other forms of diversity (Please discuss your personal experiences with diversity outside of your mission).

Marriage and Family Therapy (PhD) [733863]

The program is accredited by the Commission on Accreditation for Marriage and Family Therapy Education of the American Association for Marriage and Family Therapy and has three interrelated emphases: Clinical Practice, Teaching and Clinic Supervision, and Research. The PhD program offers two tracks: 1) Academic/Research and 2) Clinical Administration/Private Practice. Electives are offered within each of these categories to help students meet their individual goals. These emphases will be facilitated and directed within an environment of understanding and respect for multicultural diversity.

BYU offers two options for the Ph.D. degree in MFT. The first option, for students who already have an MFT master's degree from an accredited institution, takes approximately three years to complete with the first two years comprising of coursework and clinical hours and the third year primarily focusing on dissertation and internship. The second option is for students with a non-MFT master's degree program in a clinical field such as Social Work or Counseling Psychology. For this option the students work with their graduate advisor to map out which courses are needed to meet the master's curriculum and takes approximately one year to complete MFT Master's Degree curriculum not present in the previous clinical program. The additional courses required of these students allow the students to meet MFT licensing requirements as presented in the Master's Degree requirements. When all educational requirements for licensure in MFT are completed, they begin the Ph. D. curriculum. In this circumstance, the program may require approximately four years for graduation.

Requirements for Degree.

Coursework:

Credit Hours (69): minimum 45 course work hours beyond completion of the master's degree coursework and clinical experience.
Required courses:

MFT 700 (3 credits) Advanced Research Methodology in MFT
MFT 750 (3 credits) Supervision in MFT
MFT 752 (3 credits) - Advanced Topics in MFT
MFT 753 Advanced Clinical Specialization in MFT
MFT 760R (3 credits) - Supervision Practicum in Marriage and Family Therapy
MFT 770R (3 credits) - Clinical Internship
MFT 793R (3 credits) - MFT Outcome and Process Research
MFHD 605 (3 credits) - Structural Equation Modeling in the Social Sciences
MFHD 706R (3 credits) - Advanced Statistics or an approved substitute

Minor: any minor approved by graduate committee, but not required.
Clinical requirement: a minimum of 500 hours of direct client contact after completing the MFT MS requirements and 100 hours of supervision with approved supervisor.
Practicum (18 credits): MFT 655R/755R Practicum/Advanced Practicum in MFT
Dissertation (18 credits): MFT 799R Doctoral Dissertation
Examinations: All doctoral students are required to successfully defend their dissertation orally, complete the Doctoral Portfolio papers, presentations, and publications in clinical practice, teaching/supervision, and research, which serves as a comprehensive examination.
Professional development internship

Required Test

GRE

Additional Requirements

Applicants should upload a bulleted list of the following experiences in the department documents section of the application:

Clinical and human services experience (do not include LDS mission experiences here).
Research experience.

A video interview (you will receive instructions after submission of application)

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MFT Programs Mission Statement

In harmony with our sponsoring organization (i.e., The Church of Jesus Christ of Latter-Day Saints) and the mission/aims of Brigham Young University, the Marriage and Family Therapy (MFT) programs focuses on "balanced development" in all student growth areas. This development is carried out in an environment of compassion, inclusion and diversity in order to prepare students to be a healing influence in a world struggling to create safe and meaningful relationships. Both programs utilize a relational perspective (regarding the practice and science of healing) to improve the well-being of individuals, couples, and families. Finally, we strive to be an international leader in process research in order to understand how change occurs and to extend our healing influence beyond campus borders.

In fulfilling our mission statement, the MFT program is designed to fulfill the mission and aims of BYU, as an educational organization (https://aims.byu.edu/), including the creation of an "Enriched Learning Environment" (https://multicultural.byu.edu/node/whatwedo). Therefore, our admission decisions will be based largely upon applicants' capacities to contribute to the program and their ability to grow in the following areas:

1. *To intellectually enlarge* - Applicant capacity to contribute in terms of intellectual enlargement will be assessed largely through GRE scores, GPA, letters of recommendation, and the personal statement description of their educational path.
2. *To spiritually strengthen* - Applicant potential to contribute to the programs' spiritually-strengthening atmosphere will be assessed through the personal statement, video responses, any personal/professional experience (work/volunteer service presented on the resume), and their ecclesiastical endorsement.
3. *To build character* - Applicant potential to contribute to a character-building environment will be measured largely through the personal statement (in terms of a description of jobs they have had, how they financed their education, personal struggles they are dealing with), letters of recommendations, and the video responses.
4. *Capacity for lifelong service and learning* - This will be measured through the personal statement (description of their achievements in this area to date), letters of recommendation, and any personal/professional experience and service described in the resume.
5. *Enriched Learning environment* - This will be measured largely through the video responses, personal statement, and personal experiences related to gender, ethnic, racial and other forms of diversity (Please discuss your personal experiences with diversity outside of your mission).

Marriage, Family, and Human Development (MS) [735660]

The MS degree in MFHD provides students with a broad-based understanding in family sciences and human development. For some the MS is a terminal graduate degree that enhances professional opportunities. For other students this degree is designed to prepare them for doctoral study.

The graduate program is designed to address the theories, research, and practices that (1) strengthen marriages, (2) enhance the development of children, and (3) unfold the characteristics of quality nurturing relationships across generations.
Typically from six to ten students are admitted each year to the program, with the proportion of MS and PhD degree candidates varying each year.

For additional information about scholarships, assistantships, ongoing faculty research programs, and research facilities, go to http://mfhd.byu.edu/

Requirements for Degree.

36 credit hours of course work, distributed as follows:

Human Development - 6 credit hours:

MFHD 611 (3.0 credits) Advances in Human Development

One elective Human Development content course (3.0 credits)

Family Studies - 6 credit hours:

MFHD 612 (3.0 credits) Introduction to Research and Theory in Family Studies

One elective Family Studies content course (3.0 credits)

Theory - 3 credit hours:

MFHD 514 (3.0 credits) Theories of Human Development

Methods & Statistics - 15 credit hours:

MFHD 513 (3.0 credits) Applied Statistics in the Social Sciences

MFHD 691 (3.0 credits) Graduate Research Methods

MFHD 600 (3.0 credits) Multiple Regression

MFHD 605 (3.0 credits) Structural Equation Modeling in Social Sciences

One elective Methods & Statistics course (3.0 credits)

Thesis - 6 credit hours:

MFHD 699R (6.0 credits) Master's Thesis

Program of Study

Prospectus

Thesis

Exam: oral defense of thesis and course work

Required Test

GRE

Additional Requirements

Letters of Recommendation should be from individuals who can evaluate your current academic and/or professional skills and abilities. Character reference letters from friends, family or acquaintances are not appropriate.

Resume required

Marriage, Family, and Human Development (PhD) [735665]

The graduate program is designed to address the theories, research, and practices that (1) strengthen marriages, (2) enhance the development of children, and (3) unfold the characteristics of quality nurturing relationships across generations.

The PhD degree in MFHD provides integrated and in-depth learning experiences in family studies and human development. It also offers the opportunity to acquire expertise in a number of different aspects of the field. The primary focus of doctoral study is to help students become effective educators and scholars. Many graduates find professional positions in university departments related to family studies or human development. Some find positions in community settings, research organizations, or the mass media; and others choose to work in business settings.

Typically from six to ten students are admitted each year to the program, with the proportion of MS and PhD degree candidates varying each year.

For additional information about scholarships, assistantships, ongoing faculty research programs, and research facilities, go to http://mfhd.byu.edu/.

Requirements for Degree.

72 credit hours of course work; Master's and transfer credits will be applied to the elective requirements, unless a case can be made that the content of the master's or transfer course closely correlates to a course in the required core.

Required Core - 48 credit hours:

Theory - 3 credit hours:

MFHD 514 (3.0 credits) Theories of Human Development

Human Development - 6 credit hours:

MFHD 611 (3.0 credits) Advances in Human Development

Elective Human Development Content Course (3.0 credits)

Family Science - 6 credit hours:

MFHD 612 (3.0 credits) Instruction to Research and Theory in Family Studies

Elective Family Studies Content Course (3.0 credits)

Methods & Statistics - 15 credit hours:

MFHD 691 (3.0 credits) Graduate Research Methods

MFHD 600 (3.0 credits) Multiple Regression

MFHD 605 (3.0 credits) Structural Equation Modeling in Social Sciences

MFHD 706 (3.0 credits) Advanced Statistics

Elective Methods/Statistics Course (3.0 credits)

Dissertation - 18 credit hours:

MFHD 799R (18.0 credits) Doctoral Dissertation

Electives - 24 credit hours: Approved by your Graduate Committee

Required Test

GRE

Additional Requirements

1. Graduate courses in marriage, family, and human development.
2. Letters of Recommendation should be from individuals who can evaluate your current academic and/or professional skills and abilities. Character reference letters from friends, family or acquaintances are not appropriate.

(MFHD-Soc) Advanced Statistical Methods [MFHD-706R]

BYU > College of Family, Home, and Social Sciences > Family Life > Course

Topics include advanced structural equations and hierarchical linear models, or panel data techniques and generalized linear models.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Soc 605 or MFHD 605 or Psych 502.

(MFHD-Soc) Child and Adolescent Socialization [MFHD-660]

BYU > College of Family, Home, and Social Sciences > Family Life > Course

Child and adolescent development in the context of social interaction, with particular emphasis on the family. Current theory and research evaluated.

Hours: 3.0 Credit, 1.0 Lecture, 2.0 Lab

(MFHD-Soc) Experimental Design [MFHD-602]

BYU > College of Family, Home, and Social Sciences > Family Life > Course

Research methods, logic, writing, and data analysis.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: MFHD-Soc 600, Stat 510 or equivalent, or instructors consent.

(MFHD-Soc) Family Symposium [MFHD-792R]

BYU > College of Family, Home, and Social Sciences > Family Life > Course

Presentation and discussion of professional papers about the family.

Hours: 0.5 Credit, 1.0 Lecture, 0.0 Lab

Addictions and Violence in Families [MFT-649]

BYU > College of Family, Home, and Social Sciences > Family Life > Course

Assessment and treatment of multiple-problem family systems, emphasizing addictions and abuse.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Advanced Clinical Specialization in Marriage and Family Therapy [MFT-753]

BYU > College of Family, Home, and Social Sciences > Family Life > Course

Advanced approaches in treating dysfunctional individual, marital, and family systems.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Advanced Practicum in Marriage and Family Therapy [MFT-755R]

BYU > College of Family, Home, and Social Sciences > Family Life > Course

Hours: 2.0-3.0 Credit, 0.0 Lecture, 6.0 Lab
Prerequisites: MFT 650, 655R, or equivalent.

Advanced Research Methodology in MFT [MFT-700]

BYU > College of Family, Home, and Social Sciences > Family Life > Course

Advanced marriage and family therapy research methods necessary to produce state-of-the-art clinical research and grant proposals. Covers the key MFT clinical research methods with an emphasis on the application of these methods to smaller sample sizes typically found in MFT research. Covers professional writing habits and skills necessary to be productive scholars

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: MFHD 600, Soc 303R; or equivalents.

Advanced Statistics in Family Studies [MFT-605]

BYU > College of Family, Home, and Social Sciences > Family Life > Course

Statistical analysis of family science research. Outcomes include understanding research findings in research articles, ability to perform and interpret regression analysis, ANOVA, and other statistical procedures using SPSS.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Advanced Theory in Marriage and Family Therapy [MFT-751]

BYU > College of Family, Home, and Social Sciences > Family Life > Course

Advanced family therapy approaches to the diagnosis and treatment of affective, behavioral, and cognitive disorders.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Advanced Topics in MFT [MFT-752]

BYU > College of Family, Home, and Social Sciences > Family Life > Course

Seminar on advanced topics in marriage and family therapy.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Advances in Human Development [MFHD-611]

BYU > College of Family, Home, and Social Sciences > Family Life > Course

Recent advances in developmental psychology emphasizing infant development as it informs our understanding of perceptual, cognitive, linguistic, and social development in later childhood.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Graduate standing or instructor's consent.

Analysis and Treatment of Human Sexual Development [MFT-645]

BYU > College of Family, Home, and Social Sciences > Family Life > Course

Knowledge and skill required to analyze and treat questions related to human sexual development.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Applied Statistics in the Social Sciences [MFHD-513]

BYU > College of Family, Home, and Social Sciences > Family Life > Course

This course applies statistical principles to social science problems by utilizing the basics of statistical software in developing and testing research questions as well as conducting univariate and multivariate statistics such as t-tests, ANOVAs, and regression models.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Beginning Practicum in Marriage and Family Therapy [MFT-625]

BYU > College of Family, Home, and Social Sciences > Family Life > Course

Introductory course in the therapeutic process and skills. Experience in counseling individuals, premarital and marital dyads, families, groups of dyads, and multiple families.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Clinical Internship [MFT-770R]

BYU > College of Family, Home, and Social Sciences > Family Life > Course

Full-time family therapy training and practice at an approved agency.

Hours: 1.0 Credit, 1.0 Lecture, 0.0 Lab

Doctoral Dissertation [MFT-799R]

BYU > College of Family, Home, and Social Sciences > Family Life > Course

Hours: 1.0-9.0 Credit, ARR Lecture, ARR Lab

Doctoral Dissertation [MFHD-799R]

BYU > College of Family, Home, and Social Sciences > Family Life > Course

Hours: 1.0-9.0 Credit, ARR Lecture, ARR Lab

Ethical, Legal, and Professional Issues for Family Therapists [MFT-656]

BYU > College of Family, Home, and Social Sciences > Family Life > Course

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Familial Influences on Children's Social Development [MFHD-511]

BYU > College of Family, Home, and Social Sciences > Family Life > Course

Current theories and research on social development, peer relations, and behavior. Familial/parenting effects as moderated by beliefs, genetics, gender, social cognitions, culture, child guidance, interventions.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: SFL 331 or higher.

Family and Multigenerational Psychotherapy [MFT-653]

BYU > College of Family, Home, and Social Sciences > Family Life > Course

Systemic theories and strategies to diagnose and treat specific problems in dysfunctional families.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Family Life Education in the University [MFHD-566]

BYU > College of Family, Home, and Social Sciences > Family Life > Course

Delivering family life education in university settings. Working with a faculty mentor, making presentations, and preparing basic instructional materials.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Instructor's consent.

Family Theory Construction [MFHD-760]

BYU > College of Family, Home, and Social Sciences > Family Life > Course

Introduction to family theories and applied experience in theory construction and analysis focusing on familial processes and human development.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Family Therapy for Children and Adolescents [MFT-754]

BYU > College of Family, Home, and Social Sciences > Family Life > Course

Family psychotherapy with children and adolescent issues, emphasizing treatment and family interventions. Various theoretical perspectives as well as diagnosis and assessment.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Graduate Research Methods [MFHD-691]

BYU > College of Family, Home, and Social Sciences > Family Life > Course

Building on introductory knowledge, learning and exploring the quantitative research designs most commonly used in marriage, family, and human development studies.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: SFL 290, Stat 121; or equivalents.

Group Process Interaction [MFT-670R]

BYU > College of Family, Home, and Social Sciences > Family Life > Course

Theoretical foundations, key issues and themes, and instruction in facilitating group therapy practice.

Hours: 1.0-2.0 Credit, Arr. Lecture, Arr. Lab

Independent Readings [MFHD-693R]

BYU > College of Family, Home, and Social Sciences > Family Life > Course

Hours: 1.0-3.0 Credit, 3.0 Lecture, 0.0 Lab

Independent Readings [MFT-693R]

BYU > College of Family, Home, and Social Sciences > Family Life > Course

Hours: 1.0-3.0 Credit, 3.0 Lecture, 0.0 Lab

Intermediate Practicum in Marriage and Family Therapy [MFT-655R]

BYU > College of Family, Home, and Social Sciences > Family Life > Course

Experience in counseling individuals, premarital and marital dyads, families, groups of dyads, and multiple families.

Hours: 2.0-3.0 Credit, 0.0 Lecture, ARR Lab

Introduction to Research and Theory in Family Science [MFHD-612]

BYU > College of Family, Home, and Social Sciences > Family Life > Course

Research and theories about current topics in family science.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Instructor's consent.

Issues of Gender and Ethnicity in Marriage and Family Therapy [MFT-654]

BYU > College of Family, Home, and Social Sciences > Family Life > Course

Gender, ethnic, and minority issues in family systems, society, and clinical practice as they relate to individual, marital, and family treatment.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Marital and Individual Psychotherapy [MFT-652]

BYU > College of Family, Home, and Social Sciences > Family Life > Course

Assessment, intervention techniques, therapist's role, and principle processes in theories of systemic individual and marital psychotherapy.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Master's Project [MFT-698R]

BYU > College of Family, Home, and Social Sciences > Family Life > Course

Clinical project required for non-thesis option in MFT.

Hours: 1.0-3.0 Credit, Arr Lecture, Arr Lab

Master's Thesis [MFHD-699R]

BYU > College of Family, Home, and Social Sciences > Family Life > Course

Hours: 1.0-9.0 Credit, ARR Lecture, ARR Lab

Master's Thesis [MFT-699R]

BYU > College of Family, Home, and Social Sciences > Family Life > Course

Hours: 1.0-9.0 Credit, ARR Lecture, ARR Lab

MFT Outcome and Process Research [MFT-793]

BYU > College of Family, Home, and Social Sciences > Family Life > Course

A survey of the state of the art of clinical outcome and process in Marriage and Family Therapy.

Hours: 1.0-3.0 Credit, ARR Lecture, ARR Lab

Multiple Regression Analysis [MFHD-600]

BYU > College of Family, Home, and Social Sciences > Family Life > Course

Techniques and assumptions of regression models, data management, and analysis. Topics include ordinary least squares, binary, ordinal, and multiple logistic regression, and models for count variables.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Outreach in Family Life Education [MFHD-625]

BYU > College of Family, Home, and Social Sciences > Family Life > Course

Principles and practices for the development, implementation, and evaluation of family life education programs for audiences and settings outside the traditional classroom: community workshop teaching, print media, internet technology, radio, and television.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Philosophy in Family Life Education [MFHD-665]

BYU > College of Family, Home, and Social Sciences > Family Life > Course

Ethical issues and interpretive frameworks in human science that address quality of life in families.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: SFL 480 or instructor's consent.

Practicum in Family Life Education [MFHD-567R]

BYU > College of Family, Home, and Social Sciences > Family Life > Course

Supervised experience teaching family living courses in a university setting.

Hours: 1.0 Credit, 1.0 Lecture, 0.0 Lab
Prerequisites: MFHD 566 or instructor's consent.

Psychopathology and Assessment in Marriage and Family Therapy [MFT-651]

BYU > College of Family, Home, and Social Sciences > Family Life > Course

Diagnosing and assessing mental disorders and dysfunctional relationships. Etiology and diagnosis of individual, marital, and family psychopathology.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Religion and Family [MFHD-645]

BYU > College of Family, Home, and Social Sciences > Family Life > Course

Major research findings and theories linking religious belief, practice, and community to marriage and family life from the disciplines of human development, psychology, sociology, family studies, health, family therapy, and religious studies.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Research Methods for Marriage and Family Therapy [MFT-600]

BYU > College of Family, Home, and Social Sciences > Family Life > Course

Overview of research methods commonly used in the social sciences with a particular emphasis in marriage and family therapy. Experimental design, survey research, and qualitative methods are included.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Research Practicum [MFHD-603R]

BYU > College of Family, Home, and Social Sciences > Family Life > Course

Design, data collection, data analysis, and write-up.

Hours: 3.0 Credit, ARR Lecture, ARR Lab
Prerequisites: Instructor's consent.

Research Practicum [MFT-603R]

BYU > College of Family, Home, and Social Sciences > Family Life > Course

Design, data collection, data analysis, and write-up.

Hours: 3.0 Credit, 0.0 Lecture, 0.0 Lab
Prerequisites: Instructor's consent.

Social Withdrawal and Self-Processes [MFHD-695R]

BYU > College of Family, Home, and Social Sciences > Family Life > Course

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Special Topics [MFHD-695R]

BYU > College of Family, Home, and Social Sciences > Family Life > Course

Variable topics, including research on sexuality, meta-analysis, social withdraw and self-process, aggression and victimization, longitudinal data analysis, qualitative methods, etc.

Hours: 1.0-3.0 Credit, ARR Lecture, 0.0 Lab

Special Topics [MFT-695R]

BYU > College of Family, Home, and Social Sciences > Family Life > Course

Variable topics, including (1) Spirituality in Clinical Perspective and Practice, (2) Premarital and Remarital Intervention, (3) Play Therapy, (4) Research Methods for MFT, and (5) Group Process.

Hours: 1.0-3.0 Credit, ARR Lecture, 0.0 Lab

Special Topics in Marriage and Family Therapy [MFT-595R]

BYU > College of Family, Home, and Social Sciences > Family Life > Course

Individual study for qualified students.

Hours: 1.0-2.0 Credit, 2.0 Lecture, 0.0 Lab
Prerequisites: Marriage and family therapy major status; instructor's consent.

Special Topics in Marriage, Family, and Human Development [MFHD-595R]

BYU > College of Family, Home, and Social Sciences > Family Life > Course

Individual study for qualified students.

Hours: 1.0-3.0 Credit, ARR Lecture, 0.0 Lab
Prerequisites: For marriage, family, and human development major; instructor's consent.

Structural Equation Modeling in Social Sciences [MFHD-605]

BYU > College of Family, Home, and Social Sciences > Family Life > Course

Basic tools in structural equation modeling (SEM), including confirmatory factor analysis (CFA), latent variables, and combining CFA with regression. Applications of SEM to (a) multiple groups, (b) dichotomous and count outcomes, and (c) longitudinal or repeated measures.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Stat 511 or equivalent.

Supervision in MFT [MFT-750]

BYU > College of Family, Home, and Social Sciences > Family Life > Course

Covers current supervision literature and applied practice of MFT supervision, in order to help students meet educational requirements for both AAMFT Approved Supervisor status and Utah state approved supervisor designation.

Hours: 3.0 Credit, 3.0 Lecture, 1.0 Lab
Prerequisites: MFT 755R

Supervision Practicum in Marriage and Family Therapy [MFT-760R]

BYU > College of Family, Home, and Social Sciences > Family Life > Course

Supervised experience in supervising practicum students.

Hours: 1.0 Credit, 0.0 Lecture, 1.0 Lab
Prerequisites: MFT 750 and instructor's consent.

The Individual and Family Over the Life Course [MFT-663]

BYU > College of Family, Home, and Social Sciences > Family Life > Course

Stability and change in individual development and family relationships over the life course.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Theoretical Foundations of Family Systems for Marriage and Family Therapy [MFT-630]

BYU > College of Family, Home, and Social Sciences > Family Life > Course

Systems paradigm and theories for understanding marriage and family processes and as a foundation for marriage and family therapy intervention.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Marriage and family therapy major status; or SFL 451 and instructor's consent.

Theoretical Foundations of Marital and Family Therapy [MFT-650]

BYU > College of Family, Home, and Social Sciences > Family Life > Course

Epistemological and theoretical issues in marital and family therapy, including normal family processes and personal and intergenerational family issues.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Theories of Human Development and Family Science [MFHD-514]

BYU > College of Family, Home, and Social Sciences > Family Life > Course

Models and concepts in dominant contemporary developmental and family science theories.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: SFL 210, SFL 160, SFL 336, SFL 490.

Work and Family [MFHD-542]

BYU > College of Family, Home, and Social Sciences > Family Life > Course

Introduction to contemporary work/family issues. Framework for helping parents and managers deal effectively with work/family issues at work and home.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Workshop in Marriage and Family Therapy [MFT-501R]

BYU > College of Family, Home, and Social Sciences > Family Life > Course

Training in delivery of and research about psychoeducational programs for couples and families.

Hours: 1.0-2.0 Credit, 2.0 Lecture, 0.0 Lab
Prerequisites: Instructor's consent.

Anderson, Shayne R

BYU > College of Family, Home, and Social Sciences > Family Life > Faculty

Associate Professor
Family Life
PhD, University of Georgia, 2007
Research Interest: Common predictors and mediators of change across different models of therapy

Bean, Roy A

BYU > College of Family, Home, and Social Sciences > Family Life > Faculty

Associate Professor
Family Life
PhD, Brigham Young University, 1997
Research Interest: Parent-Adolescent Relationships in Ethnic Families; Culturally Competent Family Therapy

Bradford, Angela Beesley

Assistant Professor
Family Life
PhD, Auburn University, 2012
Research Interest: Mechanisms of Change in Couples' Interventions; Neurocardiological Factors in Therapy; Systemic Examinations of Individual-Level Phenomena

Busby, Dean M

Professor
Family Life
PhD, Brigham Young University, 1990
Research Interest: Premarital Couples; Relationship Assessment

Butler, Mark Heber

Professor
Family Life
PhD, Texas Tech University, 1996
Research Interest: Family Therapy

Carroll, Jason S

Professor
Family Life
PhD, University of Minnesota, 2001
Research Interest: Marriage Relationships; Professional-Family-Community Partnerships

Coyne, Sarah Marie

Associate Professor
Family Life
PhD, University of Central Lancashire, 2004
Research Interest: Effect of Media on Children's Development

Dew, Jeffrey P

Associate Professor
Family Life
PhD, The Pennsylvania State University, 2007
Research Interest: Family Resources (Money and Time) and Relationship Outcomes; Parenting; Positive Relationship Behavior

Dollahite, David C

Professor
Family Life
PhD, University of Minnesota, 1988
Research Interest: Marriage and Family Processes in Christian, Jewish, and Muslim Families; Latter-day Saint Marriage and Family Life

Duncan, Stephen Farr

Professor
Family Life
PhD, Purdue University, 1988
Research Interest: Family Life Education; Marriage Preparation

Hart, Craig H

Professor
Family Life
PhD, Purdue University, 1987
Research Interest: Human Development and Early Childhood Education

Hawkins, Alan J

Professor
Family Life
PhD, Pennsylvania State University, 1990
Research Interest: Educational and Policy Interventions to Strengthen Marriage

Hill, Edward Jeffrey

Professor
Family Life
PhD, Utah State University, 1995
Research Interest: Work and Family; Family Relationships

Holmes, Erin Kramer

Associate Professor
Family Life
PhD, University of Texas at Austin, 2006
Research Interest: Fathering; Transition to Parenthood

James, Spencer L

Assistant Professor
Family Life
PhD, Pennsylvania State University, 2012
Research Interest: Marriage and Family; Social Demography; Relationship Quality, Dissolution, and Formation; Quantitative Methods

Jensen, Alexander Charles

Assistant Professor
Family Life
PhD, Purdue University, 2013

Johnson, Lee N

Associate Professor
Family Life
PhD, Kansas State University, 1998
Research Interest: Benefits of adding physical exercise to couple and family therapy interventions, research methods, role physiology plans in couple and family relationships

Leavitt, Chelom Eastwood

Assistant Professor
Family Life
PhD, The Pennsylvania State University, 2017
Research Interest: Healthy sexual relationships, midlife development, and mindfulness; Cross cultural similarities and differences in relational and sexual quality

Marks, Loren Dean

Professor
Family Life
PhD, University of Delaware, 2002

Miller, Richard B

Professor
Family Life
PhD, University of Southern California, 1989
Research Interest: Marital Process over the Life Course; Multicultural Families

Nelson, David Allen

Professor
Family Life
PhD, University of Minnesota Institute of Child Develop, 1999
Research Interest: Child Aggression and Victimization; Cross-Cultural Parenting and Child Development

Nelson, Larry J

Professor
Family Life
PhD, University of Maryland, 2000
Research Interest: Social Development of Young Children; Emerging Adulthood

Porter, Christin Laray

Associate Professor
Family Life
PhD, Purdue University, 1996
Research Interest: Infancy and Toddlerhood

Rogers, Adam Eric Apffel

Assistant Professor
Family Life
PhD, Arizona State University, 2017
Research Interest: Family dynamics underlying adolescents' mental/behavioral health; gender development across adolescence; longitudinal methodology

Sandberg, Jonathan G

Professor
Family Life
PhD, Kansas State University, 1998
Research Interest: Couples and Health; Marriage and Family Therapy Outcome, Process, and Clinical Research

Walker, Laura Padilla

Associate Professor
Family Life
PhD, University of Nebraska, Lincoln, 2005
Research Interest: Parenting; Adolescents' Moral/Prosocial Development

Whiting, Jason Brown

Professor
Family Life
PhD, Michigan State University, 2001
Research Interest: Couple conflict, including abuse, control, and deception. Mindfulness, wellness, MFT theory, and qualitative inquiry

Willoughby, Brian J

Associate Professor
Family Life
PhD, University of Minnesota, 2009
Research Interest: Emerging Adult Sexuality and Dating; Attitude Formation and Development

Witting, Alyssa Jane Banford

Associate Professor
Family Life
PhD, Texas Tech University, 2011
Research Interest: Trauma and Culture: Mass Trauma and Communities & Families, Natural Disaster and War, MFT Process Research on Trauma Treatment

Yorgason, Jeremy B

Associate Professor
Family Life
PhD, Virginia Tech, 2003
Research Interest: Family Gerontology; Health in Marriage

Geological Sciences

Address

Geological Sciences
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Programs

Geology [694098]

Geology is the science that reveals how the Earth works. The graduate program in geology at Brigham Young University prepares scientists to solve many of society's environmental and resource problems.

The department offers one degree: Geology-MS. Areas of specialization include: Earth Science Education, Environmental Geology, and Geology.

The expected duration of the MS program is two years for full-time students who enter without deficiencies. The MS degree is designed to give the student a solid foundation in the theoretical and applied aspects of geology and a strong research experience. The thesis component allows each student to develop skills in defining a significant problem, developing a research strategy, acquiring and analyzing data, and technical writing. A MS degree in geology prepares a student for a wide variety of employment opportunities in industry, education, and government, or to pursue a doctoral degree.

The department typically has 30 MS students.

Chair: John H. McBrideGraduate Coordinator: Michael J. Dorais

Resources & Opportunity

The Department of Geological Sciences is in the Eyring Science Center which contains state-of-the-art computer resources, office space for graduate assistants, and modern laboratories. Our lab facilities house extensive and specialized instrumentation and mineral, rock, and fossil collections. The location of the university campus on the Wasatch Front near the juncture of the Rocky Mountains, the Colorado Plateau, and the Great Basin provides an incomparable natural laboratory for geology studies. The Department of Geological Sciences utilizes this natural setting, and the many geologic problems that remain in it to be studied, as one of our main assets.

The department is well equipped for graduate research in geology. A partial list of research equipment available includes: a wavelength dispersive electron microprobe (Cameca SX-50), two stable isotope ratio mass spectrometers, X-ray fluorescence spectrometer, atomic absorption spectrophotometers, a gradient elution ion chromatograph, a powder X-ray diffractometer, an atomic force microscope, ICP-OES, a cathodoluminescence microscope, a fluid inclusion heating and freezing stage, a core plug porosimeter/permeameter, two liquid scintillation counters, 3D subsurface mapping software, high-resolution GPS, Worden gravimeters, proton precession magnetometers, a ground-penetrating radar system, a twenty-four-channel seismic system and portable energy source, variable offset electrical resistivity equipment, and a core lab porosity/permability analyzer. A new 12-foot stream table has just been acquired to enhance teaching and research. Additional research facilities include the following:

The **Museum of Paleontology** includes exhibits, preparation laboratories, and fossil collections. Exhibits ranging from minerals to invertebrate and vertebrate fossils are open to the public and are an integral part of many courses. Collections are primarily from the intermountain region and include extensive assemblages of Late Jurassic and Early Cretaceous dinosaurs, Cenozoic vertebrates, and the Tidwell paleobotany collection, all of which provide research opportunities for faculty and students. Unrivaled field equipment and preparation laboratories support ongoing research projects.

The **Fission Track Dating Laboratory** provides student and faculty researchers with the geochronological potential to solve problems in stratigraphy and structural geology, to determine rates of uplift and thus aid in thermal modeling, and to provide support for numerous other faculty and student research projects where dating of events is necessary.

The **Geophysics Laboratory** supports research work in exploration, environmental, and engineering geophysics by housing seismic, ground-penetrating radar, electrical resistivity, and gravity, magnetic, and electromagnetic instrumentation, as well as computer support systems.

The **Hydrogeochemistry Laboratory** supports research programs in hydrology, environmental geology, economic geology, and petrology. In addition, the lab is used in teaching modern analytical techniques in upper-division undergraduate and graduate courses. Groundwater composition, migration, and pollution have been major emphases of research.

The **Isotope Laboratory** supports faculty, graduate, and undergraduate research by providing for analysis of stable isotopes of H, C, N, and O, as well as 14C and 3H. Analysis of H and O isotopes in water is fully automated. Hydrology, paleohydrology, paleoclimatology, and economic geology are currently major areas of research and teaching supported by this laboratory.

The **Mineral Surface Chemistry Laboratory** supports research on low-temperature chemical reactions that occur at the interface between mineral surfaces and aqueous solutions. The lab includes an atomic force microscope, a surface-area analyzer, and wet chemical facilities. Computer equipment and software are also available for molecular modeling.

The **Sedimentology/Stratigraphy Laboratories** support studies in stratigraphy, clastic and carbonate rocks, and micropaleontology. Analytical equipment to map and characterize both surface and subsurface reservoir-quality rocks, to resolve complex stratigraphic problems, and to understand diagenesis in sedimentary rocks is available to students and faculty. Studies conducted in the labs have emphasized fluid flow and migration of both hydrocarbons and water, as well as detailed sequence stratigraphic modeling.

The **Structure and Tectonics Laboratory** supports research of orogenic processes and associated Natural Hazards. Projects of orogenic processes include investigations of channel flow in the Himalaya and active arc-continent collisions, geodetic studies of plate boundary reorganization in the Indonesian region and the northern Rockies seismic belt, ophiolite genesis and emplacement, collisional melange genesis, rock versus surface uplift rates, finite difference modeling of paleo-tsunami in Indonesia, structural studies of Sevier and Basin and Range deformational features, climate versus tectonics in SE Asia, and studies of paleo-seismic records in lake sediments.

The **Ina Solar System Image Laboratory** provides resources for studies of planetary surfaces from spacecraft imaging. Current studies include dunes, mountains, rivers, lakes, and cryovolcanoes on Saturn's moon Titan, volcanism and tectonism on Jupiter's moon Io, and lunar volatile processes. Facilities include two MacPro machines and a PC with image processing software, including the USGS program ISIS, ArcGIS, ArcMap, Adobe Photoshop, Illustrator and similar programs. A central server provides storage, integration and security, and 42" printer can produce posters for conferences and prints for research and outreach.

Faculty research interests currently include the following: the geodynamic evolution of active arc-continent collision (structural features, uplifted synorogenic deposits and coral terraces, the GPS velocity field, and climate feedbacks); investigations of subsurface geology using seismic, gravity, and magnetic methods; composition of thermal waters; paleohydrology, paleoclimatology, and hydrogeology of arid and semiarid regions; petrogenesis of alkaline, mafic magmas; the origin of granitic magmas; mineral surface structure and chemistry; crystallography and crystal chemistry of silicate minerals; studies of Cenozoic magmatism and tectonism in the western United States; correlation of volcanic ash beds in western North America; origins of gold, platinum, copper, and molybdenum deposits; tungsten skarns; reservoir characterization and sequence stratigraphy; Carboniferous-Permian conodont biostratigraphy: Jurassic and Cretaceous dinosaurs and paleoenvironments, Morrison and Cedar Mountain formations, vertebrate dinosaur taphonomy, glaciology, glacial paleoclimatology, aeolian processes and planetary geology.

Financial Assistance

New graduate students are eligible for departmental scholarships, tuition scholarships, and teaching or research assistantships on a competitive basis.

Most regular degree-seeking students receive some form of financial aid. However, none may expect financial assistance from the department for more than four semesters.

Graduate students are also encouraged to seek additional support from industries and agencies outside the Department of Geological Sciences. *Note: Such requests must be submitted to the department chair, who will forward them with a supporting letter.*

Geology (MS) [694098]

Pursuit of the MS degree not only helps prepare students for exciting career opportunities in areas of distinct benefit to mankind, but it also allows them to experience the challenges and rewards of modern scientific research. It is expected that the thesis work will culminate in new understanding of a problem of scientific significance and that results will be published in a reputable scientific journal.

Areas of specialization: Earth Science Education, Environmental Geology, and Geology.

Requirements for Degree.

Credit hours (30): minimum 24 course work hours plus 6 thesis hours (Geol 699R); 1 hour of Geol 591R.

Courses include:

> Geology: Geol 601 and others to be determined in consultation with advisor.
> Environmental geology: Geol 601, 635, 636; 9 hours from Geol 411, 435, 445, 521, 560, 590R (approved by graduate committee), PWS 511, Ch En 411, CE En 545, 555, 641, 654. Recommended: Stat 511
> Earth science education: Geol 697R (approved by graduate committee); 6-9 hours from Geol 411, 435, 440, 445, 460, 480; 6 hours from IP&T 560, 564, 620, 652, 661
> Any additional graduate courses in geology approved by graduate committee may be taken to satisfy remainder of 24 course work hours

Publishable thesis.

Examinations: (A) comprehensive oral examination on course work; (B) final oral defense of thesis.

Required Test

GRE

Additional Requirements

3.0 overall GPA in all physical science courses

Upload a list of upper division Geology courses you have taken. Applicants should have taken the equivalent of courses in this list:
Geol 351 - Mineralogy
Geol 352 - Petrology
Geol 370 - Sedimentology and Stratigraphy
Geol 375 - Structural Geology
Geol 420, 421, 422 - Geology Field Studies

(Geol-Chem-C S-Math-MthEd-Phscs-Stat) Business Career Essentials in Science and Math [GEOL-500]

> Introduction for science, math, and statistics majors to careers in industry. Project planning, oral and written business presentations, business accounting, and technology readiness.
>
> **Hours:** 1.5 Credit, 1.5 Lecture, 0.0 Lab

Academic Internship [GEOL-599R]

BYU > College of Physical and Mathematical Sciences > Geological Sciences > Course

Hours: 1.0-9.0 Credit, 0.0 Lecture, 0.0 Lab

Advanced Hydrogeology [GEOL-635]

BYU > College of Physical and Mathematical Sciences > Geological Sciences > Course

Equations governing fluid flow through saturated porous media under various geologic conditions; applying hydraulic characteristics to analysis of well and aquifer conditions.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Geol 435 or instructor's consent.

Advanced Mineralogy [GEOL-551]

BYU > College of Physical and Mathematical Sciences > Geological Sciences > Course

Crystallography, structure, and crystal chemistry of major silicate mineral groups.

Hours: 3.0 Credit, 2.0 Lecture, 2.0 Lab
Prerequisites: Geol 351 or equivalent.

Advanced Stratigraphy [GEOL-574]

BYU > College of Physical and Mathematical Sciences > Geological Sciences > Course

Studying the stratigraphic record through modern methods of correlating stratal packages, emphasizing concepts of sequence and seismic stratigraphy, and utilizing methods of chronostratigraphy, biostratigraphy, lithostratigraphy, and absolute dating. Extended field trip required.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Geol 370 or equivalent.

Advanced Structural Geology [GEOL-575]

BYU > College of Physical and Mathematical Sciences > Geological Sciences > Course

In-depth discussions of a variety of topics in structural geology, emphasizing current literature and problems.

Hours: 3.0 Credit, 2.0 Lecture, 3.0 Lab
Prerequisites: Geol 375, 410; or equivalents.

Borehole Geophysics and Geology [GEOL-521]

BYU > College of Physical and Mathematical Sciences > Geological Sciences > Course

Applied well log analysis, including conventional and new techniques. Subsurface geology and lithology determined from many logs. Determining porosity, permeability, and fluid saturation with hydrology, and hydrocarbon applications.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Instructor's consent.

Career Pathways Seminar [GEOL-592R]

BYU > College of Physical and Mathematical Sciences > Geological Sciences > Course

Seminar on graduate school and career opportunities by guest speakers.

Hours: 0.5 Credit, 1.0 Lecture, 0.0 Lab

Contaminant Hydrogeology [GEOL-535]

BYU > College of Physical and Mathematical Sciences > Geological Sciences > Course

Principles, tools, and applications used to solve heavy metal, organic, and radionuclide groundwater contamination problems. Topics include regulations, mass transport, multiphase flow, transformation, retardation, and attenuation.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Geology 435 or equivalent.

Directed Field Studies [GEOL-697R]

BYU > College of Physical and Mathematical Sciences > Geological Sciences > Course

Hours: 1.0-6.0 Credit, ARR Lecture, ARR Lab

Energy Systems [GEOL-590R]

BYU > College of Physical and Mathematical Sciences > Geological Sciences > Course

Short, graduate-level courses and extended field trips offered on an irregular basis. The following topics may be offered given sufficient demand: Energy Systems; Exploratory Geophysics and Modeling; and Planetary Seminar.

Hours: 0.5-3.0 Credit, ARR Lecture, ARR Lab
Prerequisites: Instructor's consent.

Environmental Soil Chemistry [GEOL-550]

BYU > College of Physical and Mathematical Sciences > Geological Sciences > Course

Chemistry of soil systems at macroscopic and microscopic scales, examined from the perspective of scientists interested in environmental assessment and remediation.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Chem 105, 106, 107; or equivalents.

Exploratory Geophysics and Modeling [GEOL-590R]

BYU > College of Physical and Mathematical Sciences > Geological Sciences > Course

Short, graduate-level courses and extended field trips offered on an irregular basis. The following topics may be offered given sufficient demand: Energy Systems; Exploratory Geophysics and Modeling; and Planetary Seminar.

Hours: 0.5-3.0 Credit, ARR Lecture, ARR Lab
Prerequisites: Instructor's consent.

Geological Communications Laboratory [GEOL-530]

BYU > College of Physical and Mathematical Sciences > Geological Sciences > Course

Designing and creating a variety of student-selected geological illustrations emphasizing maps and cross-sections.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Instructor's consent; graduate status.

Geoscience Data Analysis [GEOL-531]

BYU > College of Physical and Mathematical Sciences > Geological Sciences > Course

Basic scientific computing skills in MATLAB, and application of statistical and numerical modeling techniques to geoscientific problems.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Stat 121 or equivalent.

Global Geology Field Studies [GEOL-504R]

BYU > College of Physical and Mathematical Sciences > Geological Sciences > Course

In-depth study of classic geologic localities, such as Hawaii, the Bahamas, and the Appalachians, preliminary to on-site field study.

Hours: 1.0-3.0 Credit, Arr. Lecture, Arr. Lab
Prerequisites: Any senior-level geology course; instructor's consent.

Hydrogeochemistry [GEOL-636]

BYU > College of Physical and Mathematical Sciences > Geological Sciences > Course

Nature and origin of solutes and isotopes in groundwater systems. Applying geochemistry to evaluation of groundwater recharge conditions and flow patterns.

Hours: 3.0 Credit, 3.0 Lecture, 1.0 Lab
Prerequisites: Geol 445 or instructor's consent.

Igneous Petrology [GEOL-552]

BYU > College of Physical and Mathematical Sciences > Geological Sciences > Course

Origin and evolution of magmas, emphasizing trace element and isotopic compositions and intensive properties as calculated from mineral compositions.

Hours: 3.0 Credit, 4.0 Lecture, 3.0 Lab
Prerequisites: Geol 352 or equivalent.

Instrumental Methods [GEOL-666]

BYU > College of Physical and Mathematical Sciences > Geological Sciences > Course

Use of instrumentation for determining mineralogical, chemical, and isotopic composition of geological materials.

Hours: 3.0 Credit, 2.0 Lecture, 2.0 Lab
Prerequisites: Geol 351, 352; or equivalents.

Isotope Geochemistry-High Temperature Applications [GEOL-545]

BYU > College of Physical and Mathematical Sciences > Geological Sciences > Course

Use of stable and radioactive isotope systematics in geochronology in investigation of the origins of igneous and metamorphic rocks and in the study of tectonics.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Geol 352 or equivalent.

Isotope Geochemistry-Low Temperature Applications [GEOL-546]

BYU > College of Physical and Mathematical Sciences > Geological Sciences > Course

Use of stable, radioactive, and radiogenic isotope systematics in geochronology and in investigation of the origins of fluid, sediment, and organic matters in low temperature settings.

Hours: 3.0 Credit, 2.0 Lecture, Arr Lab
Prerequisites: Geol 445 or equivalent.

Master's Thesis [GEOL-699R]

BYU > College of Physical and Mathematical Sciences > Geological Sciences > Course

Hours: 1.0-9.0 Credit, ARR Lecture, ARR Lab

Metamorphic Petrology [GEOL-553]

BYU > College of Physical and Mathematical Sciences > Geological Sciences > Course

Principles of metamorphism, including chemical equilibrium and thermodynamics of metamorphic reactions, geothermobarometery, origin and interpretation of zoned metamorphic minerals, pressure-temperature paths, and metamorphism of pelites, mafic, ultramafic and carbonate rocks. Additional subjects based on interest of the students.

Hours: 3.0 Credit, 2.0 Lecture, 1.0 Lab

Paleoclimatology [GEOL-606]

BYU > College of Physical and Mathematical Sciences > Geological Sciences > Course

Quaternary geochronology and stable isotope fundamentals followed by survey of major paleoclimate proxy records. Quantitative methods emphasized where appropriate.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Instructor's consent.

Petroleum Systems Analysis [GEOL-525]

BYU > College of Physical and Mathematical Sciences > Geological Sciences > Course

Properties of petroleum; exploration methods; generation and migration of hydrocarbons, reservoirs, traps, and seals; sedimentary basin classification; energy resources. Extended field trip required.

Hours: 4.0 Credit, 4.0 Lecture, 0.0 Lab
Prerequisites: Geol 370 or equivalent.

Petrophysics and Reservoir Characterization [GEOL-621]

BYU > College of Physical and Mathematical Sciences > Geological Sciences > Course

Advanced use of well log tools combined with direct (core) or analog (outcrop) lithologic information to characterize underground petroleum or groundwater reservoirs.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Planet Earth [GEOL-601]

BYU > College of Physical and Mathematical Sciences > Geological Sciences > Course

Rigorous review of the fundamentals of geology, including Earth's origin and the evolution of the major geologic systems. Field trips.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Undergraduate degree.

Planetary Seminar [GEOL-590R]

BYU > College of Physical and Mathematical Sciences > Geological Sciences > Course

Short, graduate-level courses and extended field trips offered on an irregular basis. The following topics may be offered given sufficient demand: Energy Systems; Exploratory Geophysics and Modeling; and Planetary Seminar.

Hours: 0.5-3.0 Credit, ARR Lecture, ARR Lab
Prerequisites: Instructor's consent.

Principles of Glaciology [GEOL-540]

BYU > College of Physical and Mathematical Sciences > Geological Sciences > Course

Geophysical problems involving ice in the environment and its role in global change. Topics include atmospheric ice, snow pack, glaciers, ice sheets, sea ice, permafrost, and ice age theories.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Readings and Conferences in Geology [GEOL-696R]

BYU > College of Physical and Mathematical Sciences > Geological Sciences > Course

Hours: 1.0-4.0 Credit, 4.0 Lecture, 0.0 Lab

Research [GEOL-695R]

BYU > College of Physical and Mathematical Sciences > Geological Sciences > Course

Hours: 1.0-4.0 Credit, 4.0 Lecture, 0.0 Lab

Sedimentary Petrology--Carbonate Rocks [GEOL-671]

BYU > College of Physical and Mathematical Sciences > Geological Sciences > Course

Characteristics and significance of limestones and dolomites.

Hours: 3.0 Credit, 3.0 Lecture, 2.0 Lab
Prerequisites: Geol 370 or equivalent.

Sedimentary Petrology--Clastic Rocks [GEOL-672]

BYU > College of Physical and Mathematical Sciences > Geological Sciences > Course

Characteristics of conglomerates, sandstones, and shales. Provenance studies of various terrains by thin section analysis. Extended field trip required.

Hours: 3.0 Credit, 2.0 Lecture, 2.0 Lab
Prerequisites: Geol 370 or equivalent.

Seminar [GEOL-591R]

BYU > College of Physical and Mathematical Sciences > Geological Sciences > Course

Seminar on various geologic topics by guest speakers.

Hours: 0.5 Credit, 1.0 Lecture, 0.0 Lab

Special Topics in Geology [GEOL-565R]

BYU > College of Physical and Mathematical Sciences > Geological Sciences > Course

The following topics may be offered on demand: geology for teachers, ore deposits, solid-water interface chemistry, X-ray crystallography.

Hours: 0.5-4.0 Credit, ARR Lecture, ARR Lab
Prerequisites: Instructor's consent.

Three-Dimensional Subsurface Mapping and Evaluation [GEOL-576]

BYU > College of Physical and Mathematical Sciences > Geological Sciences > Course

Advanced interpretation of 3D seismic reflection data. Integrating well and seismic data to interpret complex geologic systems. Implications for understanding hydrocarbon reservoirs.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Topics in Geology [GEOL-590R]

BYU > College of Physical and Mathematical Sciences > Geological Sciences > Course

Short, graduate-level courses and extended field trips offered on an irregular basis. The following topics may be offered given sufficient demand: Energy Systems; Exploratory Geophysics and Modeling; and Planetary Seminar.

Hours: 0.5-3.0 Credit, ARR Lecture, ARR Lab
Prerequisites: Instructor's consent.

Vertebrate Paleontology [GEOL-586]

BYU > College of Physical and Mathematical Sciences > Geological Sciences > Course

Paleobiology, osteology, and phylogeny of the vertebrates. Field trips required. Lab studies.

Hours: 4.0 Credit, 3.0 Lecture, 2.0 Lab
Prerequisites: Instructor's consent.

Volcanoes and Ore Deposits [GEOL-555]

BYU > College of Physical and Mathematical Sciences > Geological Sciences > Course

Examination of the role of volcanic rocks and processes in the generation of ore deposits.

Hours: 1.0-3.0 Credit, Arr Lecture, Arr Lab
Prerequisites: Geol 352 or equivalent.

Waveform Geophysics [GEOL-560]

BYU > College of Physical and Mathematical Sciences > Geological Sciences > Course

Principles and methods used in seismic and ground-penetrating radar (GPR) geophysics, with petroleum exploration, engineering, environmental, and hydrological applications. Includes introduction to state-of-the-art industrial software applications for data processing and visualization.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Instructor's consent.

Bickmore, Barry R

BYU > College of Physical and Mathematical Sciences > Geological Sciences > Faculty

Professor
Geological Sciences
PhD, Virginia Polytechnical Institute and State University, 1999
Research Interest: Low Temperature Geochemistry; Mineral Surface Chemistry; Water-Rock Interactions

Britt, Brooks Bradley

Associate Professor
Geological Sciences
PhD, University of Calgary, Canada, 1993
Research Interest: Vertebrate Paleontology; Taphonomy

Carling, Gregory T

Assistant Professor
Geological Sciences
PhD, University of Utah, 2012
Research Interest: Hydrogeology; Engineering Geology; Hydrogeochemistry

Christiansen, Eric H

Professor
Geological Sciences
PhD, Arizona State University, 1981
Research Interest: Petrology; Volcanology

Dorais, Michael John

Research Professor
Geological Sciences
PhD, University of Georgia, 1987
Research Interest: Igneous Petrology; Electron Microprobe Analysis

Harris, Ronald Albert

Professor
Geological Sciences
PhD, University of London, England, 1989
Research Interest: Structure; Tectonics; Mountain-Building Processes

Hudson, Samuel M

Assistant Professor
Geological Sciences
PhD, University of Utah, 2008
Research Interest: Geology

Keith, Jeffrey D

Professor
Geological Sciences
PhD, University of Wisconsin, 1982
Research Interest: Economic Geology; Geochemistry

McBride, John Henry

BYU > College of Physical and Mathematical Sciences > Geological Sciences > Faculty

Professor
Geological Sciences
PhD, Cornell University, 1987
Research Interest: Exploration Geophysics; Tectonics

Nelson, Stephen Tracy

BYU > College of Physical and Mathematical Sciences > Geological Sciences > Faculty

Professor
Geological Sciences
PhD, University of California, Los Angeles, 1991
Research Interest: Isotope Geochemistry; Environmental Geology

Radebaugh, Jani

BYU > College of Physical and Mathematical Sciences > Geological Sciences > Faculty

Associate Professor
Geological Sciences
PhD, University of Arizona, 2005
Research Interest: Planetary Science; Volcanology

Ritter, Scott Myers

BYU > College of Physical and Mathematical Sciences > Geological Sciences > Faculty

Professor
Geological Sciences
PhD, University of Wisconsin, Madison, 1986
Research Interest: Invertebrate Paleontology; Carbonate Petrology

Information Systems

BYU > Marriott School of Business > Department

Address

Information Systems
790 TNRB
801-422-5602
mism@byu.edu

Programs

Information Systems Management [232668]

The Information Systems Department administers one graduate program through the Marriott School: the Master of Information Systems Management-MISM.

The master of information systems management program offers a specialization in information systems and the application of information technology in business organizations based on a general background in business and accounting. The MISM degree is awarded at the completion of the professional program, which can begin as early as the senior year of the bachelor of information systems program and culminates in the Marriott School after the fifth year of study. Students who enter the MISM program with a baccalaureate degree in information systems can complete the program in two years or less.

The objective of the MISM program is to develop graduates who exhibit professionalism and are qualified with specialized knowledge in information system areas. The department seeks to educate individuals who are: (1) imbued with a strong sense of professional commitment, (2) qualified with specialized knowledge in the areas of information systems, (3) committed to continued professionalism beyond formal education, and (4) capable of becoming leaders who exhibit high standards of ethical conduct within their chosen profession.

The department admits approximately 60 students per year into its graduate program Information Systems Management - MISM.

Chair: Bonnie B. Anderson Graduate Coordinator: Jeff Jenkins

Resources & Opportunity

The N. Eldon Tanner Building. The Tanner Building, which houses the Marriott School, is one of the finest facilities of its kind. The original building, with a dramatic seven-story atrium, was recently updated with a new four-story addition. The addition boasts thirty-nine team study rooms, six large case rooms, the Blue Line Deli, and adds 76,000 square feet to the existing building.

The Marriott School of Management. The Marriott School is recognized as one of the outstanding management schools in the nation. Faculty are actively engaged in research and publication, and they fill leadership positions in a number of national professional organizations. The school has developed innovative educational programs that include internships, executive visitation programs, special student consulting and research projects, and other activities designed to bring management education and training closer to management practice. This is accomplished, in part, through the Marriott School's National Advisory Council.

National Advisory Council. Consisting of more than 160 prominent business and government executives, the National Advisory Council lends major support to the Marriott School. Students benefit by interacting with council members in special campus lectures and seminars and by visiting or working with these executives in their respective organizations. Furthermore, the council assists students with placement opportunities, helps develop funding sources for scholarships, and provides professional development for faculty members.

The Executives on Campus Program. This program gives students an opportunity to interact with distinguished business and government leaders who come to campus. These executives visit classes and meet with student organizations as well as participate in the Executive Lecture Series and Entrepreneurship Lecture Series.

Financial Assistance

The Information Systems Department utilizes the Marriott School's financial aid provisions. Qualified students can receive aid from the following: the Marriott School Scholarship Fund, private scholarship donations, assistantship awards, and loan assistance.

Scholarships. The Marriott School of Management offers scholarships to Marriott School students through the college, departments and programs. One application online at http://marriottschool.byu.edu/scholarship/ allows students to apply for all scholarships the Marriott School offers.

Assistantships. Research and teaching assistantships are available for qualified second-year students.

Loans. Several loans are available for Marriott School students:

> Marriott School Loans: available to full-time Marriott School day students. Marriott School loans are handled on an individual basis, dependent on financial need and standing within the participating program.
> BYU Short-Term Loans: available for up to the cost of tuition only.
> Federal Stafford Loans: subsidized by the U.S. government. Not available for international students.

More information on and applications for these loans are available from the BYU Financial Aid Office, A-153 ASB, (801) 422-4104, e-mail: financial_aid@byu.edu.

Information Systems Management (MISM) [232668]

The MISM program is designed for students who want professional careers in information systems. Students seek employment with consulting firms, accounting firms, industrial organizations, and not-for-profit entities performing a variety of services, such as understanding the information needs of an organization, designing, developing, and implementing information systems to meet specified requirements, administering the information systems function, auditing an information system, and formulating an information systems master plan to effectively utilize information technology throughout an organization.

Requirements for the MISM Degree.

MISM requirements: IS 531, 550, 551, 552; 555, 560, GSCM 530, HRM 540, STRAT 560, MSB 572; 21 elective hours from any approved MSM courses not already selected or from other courses as approved by the graduate program coordinator.

Required Test

GMAT

Admission Requirements

1. Pre-management courses: introduction to economics (micro and macro), introduction to statistics, introduction to financial and managerial accounting, introductory course in Java or equivalent, and introduction to management information systems.
2. Pre-systems courses: equivalents of courses in systems analysis, database systems, principles of business programming, data communication, systems design and implementation, enterprise application development, and business processes and controls.
3. 3.0 overall GPA

Academic Internship: Information Systems [IS-599R]

BYU > Marriott School of Business > Information Systems > Course

Approved on-the-job experience. Applying classroom theory and technology to actual problems; exploring career opportunities; learning role of information systems in business environment.

Hours: 0.5-3.0 Credit, ARR Lecture, ARR Lab
Prerequisites: Admission to Marriott School graduate program; departmental consent.

Advanced Data Analytics for Organizations [IS-555]

BYU > Marriott School of Business > Information Systems > Course

Advanced machine-learning algorithms for predicting numeric and categorical outcomes. Data dimension reduction. Forecasting. Clustering and segmentation, anomaly detection, and model quality evaluation.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Admission to a Marriott School graduate program.

Advanced Data Communications [IS-533]

BYU > Marriott School of Business > Information Systems > Course

Design, management, and strategic use of local area networks (LANs), wide area networks (WANs), intranets, and the Internet to solve business problems.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: IS 404 or equivalent.

Advanced Database Management [IS-566]

BYU > Marriott School of Business > Information Systems > Course

Advanced data modeling; use of triggers and stored procedures; extracting, transforming and loading data from transaction systems to analytical systems; introduction to data warehouses; introduction to NoSQL.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Android Mobile Development [IS-590R]

BYU > Marriott School of Business > Information Systems > Course

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Business Programming and Spreadsheet Automation [IS-520]

BYU > Marriott School of Business > Information Systems > Course

Programming in Excel Visual Basic; automating common tasks; retrieving data from web servers; building optimization models and user forms.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: IS 201 or equivalent or instructor's consent.

Data Structures and Algorithms [IS-537]

BYU > Marriott School of Business > Information Systems > Course

Programming concepts for IS majors pursuing careers in software development. Concepts include lists, stocks, queue, maps, and other structures; sorting and other algorithms; and recursion.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Digital Forensics for Organizations [IS-565]

BYU > Marriott School of Business > Information Systems > Course

Digital forensics from an organizational perspective, covering the three functions of digital forensics performed by businesses: employee abuse investigations, incident response, and electronic discovery.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: I Sys 404 or equivalent.

Enterprise Infrastructure [IS-531]

BYU > Marriott School of Business > Information Systems > Course

Principles of IT enterprise infrastructure management, including platform choices, functionality, cost, security, deployment, controls, flexibility, and adaptability.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Admission to MISM program; IS 404 or equivalent.

Healthcare Industry Dynamics [IS-588]

BYU > Marriott School of Business > Information Systems > Course

A broad study of the many interconnected components of the healthcare industry, including medical technology, pharmaceuticals, hospital administration, healthcare policy, insurance, public health, etc. Introductory applications of various functional skills to healthcare (e.g., accounting, data analytics, ethics, finance, human resources, information systems, marketing, operations, organizational behavior, strategy, supply chain management, and other specializations).

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Information Security Management [IS-560]

BYU > Marriott School of Business > Information Systems > Course

How technology, organizations, and people interact to create secure information systems. Topics include data encryption, physical security, information security policies, and security awareness and training.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: I Sys 404 or equivalent.

Introduction to Academic Research in Information Systems [IS-571]

BYU > Marriott School of Business > Information Systems > Course

Conducting academic information systems research, including philosophy of science, causality, validity, research proposal development, and research methods.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Admission to MISM program; instructor's consent.

Managing a Software Startup [IS-590R]

BYU > Marriott School of Business > Information Systems > Course

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

MISM Capstone Introduction [IS-550]

BYU > Marriott School of Business > Information Systems > Course

Presentations by faculty and professionals to make students aware of latest developments in the field and help them prepare a capstone project proposal.

Hours: 0.5 Credit, 1.0 Lecture, 0.0 Lab
Prerequisites: Final year in MISM.

MISM Capstone Project [IS-552]

BYU > Marriott School of Business > Information Systems > Course

Development and completion of capstone project integrating information systems knowledge previously gained in the MISM program

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Admission to MISM.

Mobile Platform Development [IS-543]

BYU > Marriott School of Business > Information Systems > Course

Principles of mobile platforms. Application development for mobile platforms such as smart phones and tablets. Emphasizing user experience and business analytics for management decisions.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: IS 413 or equivalent.

Project Management [IS-562]

BYU > Marriott School of Business > Information Systems > Course

Principles and skills of project management in an information systems context, including management of risk, schedule, scope, cost, quality control, communications, human resources, and procurement.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Admission to a Marriott School graduate program.

Readings and Conference [IS-693R]

BYU > Marriott School of Business > Information Systems > Course

In-depth study one-on-one with chosen professor on topic of mutual interest not currently covered in an existing course.

Hours: 0.5-3.0 Credit, ARR Lecture, 0.0 Lab
Prerequisites: MISM director's consent.

Seminar in Information Systems [IS-590R]

BYU > Marriott School of Business > Information Systems > Course

Special topics by announcement.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Spreadsheets for Business Analysis [IS-515]

BYU > Marriott School of Business > Information Systems > Course

Using spreadsheets to support business analysis and decision making. Includes sensitivity analysis, pivot tables, introductions to databases, macros, charting, and similar topics.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: IS 201 or equivalent.

User Experience Design and Technical Leadership [IS-551]

BYU > Marriott School of Business > Information Systems > Course

Leadership in a technical field, and user experience design in the context of web and mobile application development.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Admission to a Marriott School graduate program.

Web Development [IS-542]

BYU > Marriott School of Business > Information Systems > Course

Web development techniques, including server-side and client-side processing, database integration, and advanced browser techniques.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: IS 403 or equivalent.

Albrecht, Conan Carl

BYU > Marriott School of Business > Information Systems > Faculty

Professor
Information Systems
PhD, University of Arizona, 2000
Research Interest: Distributed Group Support Systems; Computer-Aided Fraud Detection

Allen, Gove Nathaniel

BYU > Marriott School of Business > Information Systems > Faculty

Associate Professor
Information Systems
PhD, University of Minnesota, 2001
Research Interest: Database Management; Conceptual Modeling

Anderson, Bonnie Brinton

BYU > Marriott School of Business > Information Systems > Faculty

Associate Professor
Information Systems
PhD, Carnegie Mellon University, 2001
Research Interest: Information Systems; Change Management

Dean, Douglas L

Associate Professor
Information Systems
PhD, University of Arizona, 1995
Research Interest: Systems

Liddle, Stephen Wallace

Professor
Information Systems
PhD, Brigham Young University, 1995
Research Interest: Software Development; Data Extraction; Conceptual Modeling

Instructional Psychology and Technology

Address

Instructional Psychology and Technology
150 MCKB
801-422-5097
ipt@byu.edu

Programs

Instructional Psychology and Technology [355461]
Instructional Psychology and Technology [355460]

Instructional Psychology and Technology is a branch of educational study concerned with the ideas, principles, and theories related to the improvement of learning. Students of instructional psychology and technology seek to identify and implement improvements in instruction while endeavoring to understand the principles that govern these improvements. These solutions are implemented in educational settings in public schools and universities, business, industry, the government, the military, the community, and the church.

The objective of the Department of Instructional Psychology and Technology is to enhance learning by improving instruction and teaching. In partnership with others, the department will (1) search for knowledge that improves instruction, (2) apply knowledge and technology to solve instructional problems, and (3) empower students with knowledge and skills in instructional development, research, evaluation, and measurement.

Students in each degree program are required to take basic courses in the following areas of disciplined inquiry in instruction: design and development, research, measurement, and evaluation. They are also required to acquire collateral tools from other disciplines such as statistics, computer science, human resource management, and communications. Specialized courses are offered to deepen the candidate's knowledge and theoretical sophistication. Professional skills are developed through extensive project and internship experiences offered in the schools, church, home, and community.

The Department of Instructional Psychology and Technology offers two degrees: Instructional Psychology and Technology-MS and Instructional Psychology and Technology-PhD.

Approximately thirty students are enrolled in the MS program and fifty students in the PhD programs. Full-time MS students should be able to complete an MS degree within approximately two years; full-time PhD students with an MS in instructional psychology and technology should be able to complete the PhD within three years.

Master's and doctoral students in other departments wishing to take a minor in Instructional Psychology and Technology should counsel with the instructional psychology and technology faculty member appointed to their graduate committee in selecting the appropriate courses (9 hours of course work required for a master's minor, 12 hours for a doctoral minor).

Chair: Charles GrahamGraduate Coordinator: Stephen Yanchar

Resources & Opportunity

Instructional Psychology and Technology utilizes the David O. McKay Education Building for the majority of its classrooms and resource centers.

The school and department provide extensive computer and multimedia facilities for student use. Macintosh and Windows computers are available in various computer laboratories. Most of these computers are connected to the university broad-band network, which provides convenient access to a large number of computer-based software tools, such as SPSS and SAS statistical analysis programs, and extensive online library research tools.

For a more detailed description of the graduate program requirements, see the department Web site at http://education.byu.edu/ipt

Financial Assistance

Financial assistance is available mainly in the form of paid internships through the Instructional Psychology and Technology Department, other departments within the university, and various agencies external to the university. Limited funds are available for partial tuition scholarships for students with emergency financial needs. Other financial aid is available through the university.

Instructional Psychology and Technology (PhD) [355461]

The PhD program prepares students to assume positions of leadership in instructional design and evaluation. Graduates may take positions as faculty at colleges and universities, direct other instructional designers in private or public institutions, or work as an individual consultant.

The instructional psychology and technology doctoral program is designed for full-time study. All PhD students will be required to complete the equivalent of 15 credits per year to remain enrolled in the program (prior to completing non-dissertation coursework).

Requirements for Degree.

Credit hours (90 hours): 72 course work hours plus 18 dissertation hours (IP&T 799R).
Advanced writing (3 hours): IP&T 510 - Scholarly Writing and Argumentation.
Skills courses (15 hours): Research Methods Skills: IP&T 651, 653, 674R, 730, 745, 747, 752, 753R, 754, 789, and/or Computer Science Skills: IP&T 560, 654, 655, 665, 760R.
- Must include at least one qualitative methods course (e.g., IP&T 653, 753R, etc.) as a skills course.
- Must include at least one quantitative methods course (e.g., IP&T 651, 752, 754, etc.) as a skills course.

Required (core) courses (18 hours): IP&T 520, 564, 620, 629, 652, (661 or 761).
Specialization: 22 hours as determined in consultation with graduate committee.
Internship: 6 hours (IP&T 599R).
Seminar: 2 hours (IP&T 690R).
Two projects: 6 hours (IP&T 657R, 667R, 677R, 687R).
Dissertation: 18 hours (IP&T 799R)
Examinations: Oral defense of dissertation.
Students must register for at least two consecutive 6-hour semesters on the BYU campus.

We strongly recommend that you have an MS degree in IP&T or related field prior to applying for the PhD program. If you currently do not have an MS degree, we encourage you to first apply for the MS program and then apply for the PhD towards the end of your MS degree. Those with MS degrees in IP&T are much more competitive for advanced study. Starting as an MS student will not slow down your progress because all the core coursework required for the MS is also required for the PhD. Up to 36 credits (of the total 39) can be applied from our MS program to the PhD requirements. (We can also accept up to 36 credits from a comparable graduate program under the discretion of the department chair.)

Required evidence:

GRE
Letter of Intent
All past post-secondary transcripts
Three letters of recommendation
Current resume or vita

Optional evidence:

You may include one or more of these sources of evidence in your application to make the strongest case for your admission to the program.

MS degree or coursework in IP&T or related field – if your MS is in a related field, please provide a description of how it relates.
Record of Design-Related Work Experience – provide details such as employers, years of experience with each, and a description of the design-related work you were engaged in.
Evidence of completion of the BYU Design Thinking Minor or related coursework at another university.
Writing Sample – sample of academic writing that has been published or peer reviewed with a brief explanation contextualizing the sample.

Please include this additional evidence in the "Additional Information" section of the university application.

Video interview:

Once your application is submitted you should receive an email with instructions on how to complete the interview portion of the application. This will consist of recording a brief video response to a small number of interview prompts.

Instructional Psychology and Technology (MS) [355460]

The MS program prepares students to assume professional positions in instructional design and evaluation or to pursue a doctorate in these fields. All MS students will be required to complete at least 12 credit hours each year to remain enrolled in the program (prior to completing project coursework).

Requirements for Degree.

Credit hours (39 hours): 33 course work hours plus 6 thesis hours (IP&T 699R) or 6 project hours (IP&T 698R).
Academic writing (3 hours): IP&T 510-Academic Writing and Argumentation.
Required courses (18 hours): IP&T 520, 560, 564, 629, 652, 661.
Emphasis: 8 hours to be determined in consultation with graduate committee.
Internship: 3 hours (IP&T 599R).
Seminar: 1 hour (IP&T 690R).
Thesis: 6 hours (IP&T 699R); or project: 6 hours (IP&T 698R).
Examinations: oral defense of thesis or project.
Students must register for at least two consecutive 6-hour semesters on the BYU campus.

Required evidence:

Letter of intent
Al past post-secondary transcripts
Three letters of recommendation
Current resume or vita

Optional evidence:

You are encouraged to include one or more of these sources of evidence in your application to make the strongest case for your admission to the program.

GRE or other graduate exam (GMAT, LSAT, MAT, etc.) – the GRE is not a requirement for the MS application. However, we strongly suggest that you use the GRE as a piece of evidence in your application if you do not have other strong optional evidence to include.
Record of Design – Related Work Experience – provide details such as employers, years of experience with each, and a description of the design-related work you were engaged in.
Evidence of completion of the BYU Design Thinking Minor or related coursework at another university.
Writing Sample – sample of academic writing that has been published or peer reviewed with a brief explanation contextualizing the sample.

Please include this additional evidence in the "Additional Information" section of the university application.

Video interview:

Once your application is submitted you should receive an email with instructions on how to complete the interview portion of the application. This will consist of recording a brief video response to a small number of interview prompts.

(IP&T - CPSE) Hierarchical Linear Modeling [IP&T-730]

BYU > David O. McKay School of Education > Instructional Psychology and Technology > Course

Conceptual and applied processes in hierarchical linear modeling with cross sectional nested data and longitudinal repeated measures data.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

(IP&T - CPSE) Introduction to Research [IP&T-629]

BYU > David O. McKay School of Education > Instructional Psychology and Technology > Course

Introduction to the design options available for conducting basic and applied research and how to read and write research reports. Quantitative, qualitative, and mixed methods along with ideas for protecting human subjects are discussed.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

(IP&T - CPSE) Meta Analysis [IP&T-789]

BYU > David O. McKay School of Education > Instructional Psychology and Technology > Course

An overview of qualitative research synthesis, methods for systematic literature reviews and meta-analysis. A balanced approach between conceptualization and application with practice using existing data sets and statistical packages.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

(IP&T - CPSE) Qualitative Research 1 (Intro to Qualitative Research) [IP&T-653]

BYU > David O. McKay School of Education > Instructional Psychology and Technology > Course

Provides an introduction to qualitative inquiry in education, emphasizing major assumptions of qualitative research, a survey of prominent qualitative approaches, differences between various qualitative approaches and more traditional qualitative strategies, and practice with basic qualitative research skills such as interviewing, transcription, data analysis, and report writing.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

(IP&T - CPSE) Qualitative Research 2 (Advanced) [IP&T-753R]

BYU > David O. McKay School of Education > Instructional Psychology and Technology > Course

An in-depth exploration of qualitative research approaches and data analyses. Options include AR/PAR/Self-Study/Narratives; Hermeneutics, Phenomenology; Ethnography/Case Study; Grounded Theory; emerging methods.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

(IP&T - CPSE) Statistics 1: Foundations [IP&T-651]

BYU > David O. McKay School of Education > Instructional Psychology and Technology > Course

Emphasis on conceptual understanding and practical application of descriptive and basic inferential statistics to decision making.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

(IP&T - CPSE) Statistics 2: Multiple Regression [IP&T-745]

BYU > David O. McKay School of Education > Instructional Psychology and Technology > Course

An examination of multiple regression as an inferential statistical procedure in its own right and as a foundation for subsequent courses in structural equation modeling, path analysis, and factor analysis.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

(IP&T - CPSE) Structural Equation Modeling [IP&T-747]

BYU > David O. McKay School of Education > Instructional Psychology and Technology > Course

Examination of Structural Equation Modeling with expressions in Path Analysis, Confirmatory Factor, and Latent Variable Modeling.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Academic Internship [IP&T-599R]

BYU > David O. McKay School of Education > Instructional Psychology and Technology > Course

Practicing skills learned and receiving evaluation and feedback from internship sponsors.

Hours: 0.5-6.0 Credit, 0.0 Lecture, 18.0 Lab
Prerequisites: Departmental consent.

Advanced E-Learning Development [IP&T-760R]

BYU > David O. McKay School of Education > Instructional Psychology and Technology > Course

Team-based development of an instructional product for a local client.

Hours: 3.0 Credit, 3.0 Lecture, ARR Lab

Advanced Instructional Design [IP&T-664R]

BYU > David O. McKay School of Education > Instructional Psychology and Technology > Course

Advanced laboratory in instructional system design, production, formative evaluation, packaging, and implementation. Systematic critical analysis of all phases of development.

Hours: 3.0 Credit, 3.0 Lecture, ARR Lab

Advanced Seminar [IP&T-790R]

BYU > David O. McKay School of Education > Instructional Psychology and Technology > Course

Acquiring advanced understanding within a specialized domain of instructional psychology and technology through experiences with guest lecturers and experts in the domain.

Hours: 0.5-3.0 Credit, 1.0 Lecture, 8.0 Lab

Advanced Topics [IP&T-692R]

BYU > David O. McKay School of Education > Instructional Psychology and Technology > Course

Developing increased understanding and competency in a specific area of instructional psychology and technology through focused learning of a narrow topic.

Hours: 0.5-3.0 Credit, ARR Lecture, ARR Lab

Assessing Learning Outcomes [IP&T-652]

BYU > David O. McKay School of Education > Instructional Psychology and Technology > Course

Selecting and constructing instruments and procedures for assessing affective, behavioral, and cognitive outcomes of education.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Authoring Tools [IP&T-515R]

BYU > David O. McKay School of Education > Instructional Psychology and Technology > Course

A project-based approach to learning to use both industry-standard and cutting-edge authoring tools. Building practical skills and experience.

Hours: 0.5-3.0 Credit, ARR Lecture, ARR Lab

Computers in Educational Measurement [IP&T-654]

BYU > David O. McKay School of Education > Instructional Psychology and Technology > Course

Types of computerized measurement and assessment methods and item forms, as well as their development, delivery, and statistical theory.

Hours: 0.5-4.0 Credit, 2.0 Lecture, 2.0 Lab
Prerequisites: IP&T 652 or instructor's consent.

Development Project [IP&T-687R]

BYU > David O. McKay School of Education > Instructional Psychology and Technology > Course

Designing, conducting, and reporting a comprehensive project in development.

Hours: 0.5-3.0 Credit, ARR Lecture, ARR Lab

Digital Interface Design [IP&T-655]

BYU > David O. McKay School of Education > Instructional Psychology and Technology > Course

Theoretical and practical principles of designing interfaces for all instructional forms, including message design, representation design, and control design.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Directed Individual Study [IP&T-693R]

BYU > David O. McKay School of Education > Instructional Psychology and Technology > Course

Improving understanding of a focused topic through mentored inquiry and completion of related writing or design activities.

Hours: 0.5-3.0 Credit, ARR Lecture, ARR Lab
Prerequisites: Instructor's consent.

Doctoral Dissertation [IP&T-799R]

BYU > David O. McKay School of Education > Instructional Psychology and Technology > Course

Formal report and defense of a substantive research topic designed to make an original contribution to knowledge in the field.

Hours: 0.5-9.0 Credit, ARR Lecture, ARR Lab
Prerequisites: Completion of skill and project requirements.

Educational Product Evaluation [IP&T-661]

BYU > David O. McKay School of Education > Instructional Psychology and Technology > Course

Introduction to the purposes and methods of evaluating educational products, including strategies for conducting usability evaluations, formative evaluations, summative evaluations, and confirmative evaluations.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Evaluation Project [IP&T-667R]

BYU > David O. McKay School of Education > Instructional Psychology and Technology > Course

Designing, conducting, and reporting a comprehensive project in evaluation.

Hours: 0.5-3.0 Credit, ARR Lecture, ARR Lab

Foundations of Instructional Technology [IP&T-520]

BYU > David O. McKay School of Education > Instructional Psychology and Technology > Course

Introduction to instructional psychology and technology theory and practice: psychological foundations of human performance technology and learning sciences. Current research issues, professional organization of the field, and ethical issues.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Instructional Design [IP&T-564]

BYU > David O. McKay School of Education > Instructional Psychology and Technology > Course

Identifying instructional problems; specifying objectives, instructional strategies, and media; analyzing learning outcomes; developing instructional materials and assessment instruments; validating instructional systems.

Hours: 3.0 Credit, 3.0 Lecture, ARR Lab

Instructional Product Development [IP&T-560]

BYU > David O. McKay School of Education > Instructional Psychology and Technology > Course

Designing, developing, and troubleshooting instructional products using industry-standard tools.

Hours: 3.0 Credit, 3.0 Lecture, ARR Lab

Instructional Visual/Video Production [IP&T-665]

BYU > David O. McKay School of Education > Instructional Psychology and Technology > Course

Designing, producing, and integrating audio, visual, and video instructional materials. Applying digital and other technologies in audio recording and mixing, and photographic and video production.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Intermediate eLearning Development [IP&T-660]

BYU > David O. McKay School of Education > Instructional Psychology and Technology > Course

Intermediate level designing, developing, and implementing a learning product.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Introduction to Open Education [IP&T-531]

BYU > David O. McKay School of Education > Instructional Psychology and Technology > Course

Students will learn foundational concepts related to open education including the origins of intellectual property law and open licensing, and the impact of openness on teaching, learning, and scholarly publishing.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Item Response Theory [IP&T-754]

BYU > David O. McKay School of Education > Instructional Psychology and Technology > Course

Concepts, models, and assumptions in IRT, including trait and parameter estimation, scale properties, assessment of model fit, and the use of computer software. Emphasizes applications of IRT to practical testing problems including test construction and revision, adaptive testing, differential item functioning, score equating, vertical scaling, and model-based diagnostic assessment.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Literature Review and Synthesis [IP&T-750]

BYU > David O. McKay School of Education > Instructional Psychology and Technology > Course

Strategies, methods, and habits for writing and publishing effective critical literature reviews. Students must already have a research topic selected, defined narrowly enough to do meaningful inquiry, and approved by their advisor before taking the course.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: IP&T 629 and selection of research topic.

Master's Project [IP&T-698R]

BYU > David O. McKay School of Education > Instructional Psychology and Technology > Course

Making a significant contribution to the advancement of theory, research, and/or practice through a successful development, implementation, and evaluation or critique of an evaluation, measurement, research, or design project.

Hours: 0.5-6.0 Credit, ARR Lecture, ARR Lab

Master's Thesis [IP&T-699R]

BYU > David O. McKay School of Education > Instructional Psychology and Technology > Course

Making a significant contribution to the advancement of theory, research, measurement, and/or practice through proposing, implementing, and writing a research study.

Hours: 0.5-6.0 Credit, ARR Lecture, ARR Lab

Measurement Project [IP&T-657R]

BYU > David O. McKay School of Education > Instructional Psychology and Technology > Course

Designing, conducting, and reporting a comprehensive measurement project.

Hours: 0.5-3.0 Credit, ARR Lecture, ARR Lab
Prerequisites: IP&T 652, Stat 510; or equivalents.

Measurement Theory [IP&T-752]

BYU > David O. McKay School of Education > Instructional Psychology and Technology > Course

Classical and modern models for measuring human attributes. Issues related to reliability, validity, item selection, scoring, standard setting, and test equating. Use of item response theory and generalizability theory.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Principles of Learning [IP&T-620]

BYU > David O. McKay School of Education > Instructional Psychology and Technology > Course

Improving classroom learning through understanding underlying psychological principles and theories.

Hours: 3.0 Credit, 3.0 Lecture, ARR Lab

Program Evaluation in Education [IP&T-761]

BYU > David O. McKay School of Education > Instructional Psychology and Technology > Course

Assumptions, theories, practices, and problems associated with educational program evaluation.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Project and Instructional Resource Management [IP&T-682]

BYU > David O. McKay School of Education > Instructional Psychology and Technology > Course

Managing research, development, and evaluation projects in public schools and higher education. Planning, budgeting, supervising, managing personnel, and scheduling.

Hours: 3.0 Credit, 3.0 Lecture, ARR Lab

Quasi-Experimental Studies [IP&T-674R]

BYU > David O. McKay School of Education > Instructional Psychology and Technology > Course

Critiquing causal claims; planning causal probing studies.

Hours: 0.5-3.0 Credit, ARR Lecture, ARR Lab

Research in Blended and Online Learning Environments [IP&T-638]

BYU > David O. McKay School of Education > Instructional Psychology and Technology > Course

Introduction to major research problems, questions, and theories that have been investigated in blended and online learning. Exploration of current inquiry questions and methods used to conduct research in blended and online learning environments.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Research in Open Education [IP&T-631]

BYU > David O. McKay School of Education > Instructional Psychology and Technology > Course

Students will engage in an in-depth literature review and research project related to issues in open education including the use of open educational resources.

Hours: 1.0-3.0 Credit, Arr Lecture, Arr Lab

Research Project [IP&T-677R]

BYU > David O. McKay School of Education > Instructional Psychology and Technology > Course

Designing, conducting, and reporting a comprehensive project in research.

Hours: 0.5-3.0 Credit, ARR Lecture, ARR Lab

Scholarly Writing and Argumentation [IP&T-510]

BYU > David O. McKay School of Education > Instructional Psychology and Technology > Course

A prerequisite course designed to help improve students' scholarly writing and argumentation. Students work together to strengthen their skills in these areas by analyzing sources from the scholarly literature, completing writing assignments, offering feedback on other students' work, receiving feedback on their own, and completing a course project.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Seminar [IP&T-690R]

BYU > David O. McKay School of Education > Instructional Psychology and Technology > Course

Developing a greater understanding of the theories, practices, and trends in the discipline through presentations from disciplinary leaders.

Hours: 0.5 Credit, ARR Lecture, ARR Lab

Special Topics in Instructional Psychology [IP&T-514R]

BYU > David O. McKay School of Education > Instructional Psychology and Technology > Course

Topics vary. Topics may include technical applications, effective teaching, student assessment.

Hours: 0.5-3.0 Credit, ARR Lecture, 0.0 Lab

Special Topics in Instructional Psychology and Technology [IP&T-515R]

BYU > David O. McKay School of Education > Instructional Psychology and Technology > Course

Becoming more familiar with key issues in the field of instructional psychology and technology.

Hours: 0.5-3.0 Credit, ARR Lecture, ARR Lab

Teaching in Online and Blended Learning Environments [IP&T-538]

BYU > David O. McKay School of Education > Instructional Psychology and Technology > Course

Students will explore foundational concepts related to online/blended learning and will learn to plan, develop, facilitate, and evaluate teaching and learning in these environments.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Davies, Randall Spencer

BYU > David O. McKay School of Education > Instructional Psychology and Technology > Faculty

Associate Professor
Instructional Psychology and Technology
PhD, Brigham Young University, 2002
Research Interest: Program Evaluation & Assessment; Technology Integration; Educational Data Mining & Learning Analytics

Graham, Charles R

BYU > David O. McKay School of Education > Instructional Psychology and Technology > Faculty

Professor
Instructional Psychology and Technology
PhD, Indiana University, 2002
Research Interest: Blended and Online Learning; Technology-Mediated Teaching and Learning

Kimmons, Royce Matthew

BYU > David O. McKay School of Education > Instructional Psychology and Technology > Faculty

Assistant Professor
Instructional Psychology and Technology
PhD, The University of Texas, Austin, 2012
Research Interest: Technology Integration; Open Education; Social Networks; Data Mining

Larsen, Ross Allen Andrew

Assistant Professor
Instructional Psychology and Technology
PhD, Texas A&M, 2014
Research Interest: Common Methodological Social Science Issues and Comprehensive Structural Equation Modeling

Leary, Heather Miriam

Assistant Professor
Instructional Psychology and Technology
PhD, Utah State University, 2012
Research Interest: Teacher Professional Learning, K-12 and Higher Education

McDonald, Jason K

Associate Teaching Professor
Instructional Psychology and Technology
PhD, Brigham Young University, 2006
Research Interest: Instructional Design Process, Models of Instructional Design, Reflexive Practice

Rich, Peter J

Associate Professor
Instructional Psychology and Technology
PhD, University of Georgia, 2007
Research Interest: Game-Based Learning; Computational Thinking; Video Analysis

Sudweeks, Richard R

Professor
Instructional Psychology and Technology
PhD, University of Illinois, 1978
Research Interest: Educational Measurement and Evaluation

West, Richard Edward

Associate Professor
Instructional Psychology and Technology
PhD, University of Georgia, 2009
Research Interest: Communities of Innovation; Program Evaluation; Creativity, K-16 Technology Integration; Online Collaborative Learning

Yanchar, Stephen C

Associate Professor
Instructional Psychology and Technology
PhD, Brigham Young University, 1997
Research Interest: Instructional Design Practices; Agency in Education; Qualitative Research Methods

Center for Language Studies

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Programs

Second Language Teaching SLaT [555560]

The Programs of Study

The Center for Language Studies offers a college-wide M.A. degree in Second Language Teaching (SLaT). It is anticipated that five to eight students are admitted into the SLaT program each year. Students are admitted to the program with a specific language emphasis, provided that there is a graduate faculty member in the target language who can serve as thesis advisor. It normally takes four semesters for a student to complete the program.

Second Language Teaching (SLaT) -- MA

The SLaT MA program is ideally suited to the needs of individuals who have completed undergraduate degrees in foreign languages and have an interest in teaching their acquired language in an advanced educational setting, such as in a college or university or in a business enterprise. The SLaT MA is not a public school certification program, but the program will be beneficial to currently certified foreign language teachers as part of their continuing professional development or as preparation to pursue a Ph.D. in foreign language education.

Director: Ray T. Clifford Graduate Coordinator: Jennifer BownProgram Manager: Rebecca Brazzale

Resources & Opportunity

Teaching Opportunity: Students in the SLaT program typically have the opportunity to teach one or more classes in their language of emphasis. If such an opportunity is not offered through the student's language department, students are strongly encouraged to gain teaching experience in another second language teaching setting.

Office of Digital Humanities: Students in the Second Language Teaching program may utilize facilities in the HLR for computer-assisted language instruction and research.

The Foreign Language Student Residence (FLSR): Students who desire a more intensive language study experience and practical application of the language under the direction of faculty and native residents may apply to live in the FLSR. All activities in the individual apartments in the residence are conducted in the foreign language. Housing is available for men and women in Arabic, Chinese, French, German, Italian, Japanese, Portuguese, Spanish, and Russian languages. Graduate students may participate in this program as students or as native speaker resident facilitators.

BYU Language Certificate: Graduate students at BYU have the opportunity to certify their oral and written language proficiency through the American Council on Teaching Foreign Languages (ACTFL). These assessments are not mandatory, but students are encouraged to participate during their graduate work. Visit https://languagecertificate.byu.edu/ for more information.

For a more detailed description of the graduate program requirements, visit slat.byu.edu.

Financial Assistance

Partial tuition scholarships are available. Applicants may also contact directly the department of their language of emphasis to apply for teaching assistantships.

Second Language Teaching SLaT (MA) [555560]

The SLaT MA program uniquely prepares students with second language teaching skills that are based on sound teaching theories that build on and go beyond the scientific study of language. This master's program assists second- and foreign-language teachers in improving their professional qualifications in second language pedagogy, research and assessment. The focus is on teacher preparation providing a skill set suitable for a variety of careers within higher education and second language teaching. There is an industry need for teachers who are prepared to teach less commonly taught languages; this program helps to satisfy that need. The SLaT program also prepares a foundation for continued study in Ph.D. programs in foreign language education and eventual entry into academia.

Requirements for Degree.

Credit hours (33): Master's Thesis Option (699R) - minimum 27 course work hours and 6 thesis hours or Master's Project Option (698R) minimum 30 course work hours and 3 project hours.
Required Core Courses: SLaT 601, 602, 603, and 604 (12 credits) plus 3 additional courses from the following: SLaT 610, 611, 612, 613, or 614 (9 credits).
Elective courses (6 credits):
3 credits of a graduate-level language, linguistics, or literature course of the language of emphasis.
3 credits of a graduate-level language-specific course or an additional graduate-level pedagogy course from the required core courses listed above.
Examinations: (A) Written comprehensive exam covering student's coursework and reading list. (Students are required to take this exam during the fourth semester of study.) (B) Oral defense of thesis or project.

Required Tests

GRE (50th percentile or above on verbal and 4 or above on writing)

TOEFL for international students (TOEFL iBT score of 90 with a minimum score of 24 in speaking and 22 in listening, reading and writing)

ACTFL OPI (Non-native speaker of the language of emphasis must demonstrate target-language proficiency by taking the ACTFL OPI and receiving an OPI rating of advanced Low or Intermediate High depending on language difficulty)

Additional Requirements

1. Statement of intent
2. Three letters of recommendation
3. Resume
4. Scholarly writing sample in English (10-20 pages)
5. Successful completion of a language-teaching methodology course prior to the start of the graduate program

Assessing Language Skills [SLAT-604]

BYU > College of Humanities > Center for Language Studies > Course

Purposes and uses of various forms of assessment; development of tests, surveys, questionnaires, and alternative forms of assessment; evaluation of the quality of assessments.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Conducting Research in Second Language Teaching [SLAT-603]

BYU > College of Humanities > Center for Language Studies > Course

Reviewing, understanding, and evaluating published research; designing quantitative and qualitative research studies; using basic statistical procedures for analyzing data; writing a research prospectus conforming to APA style guidelines.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Directed Studies [SLAT-680R]

BYU > College of Humanities > Center for Language Studies > Course

Individualized studies in language of emphasis, directed by a faculty member. Research paper required.

Hours: 1.0-3.0 Credit, Arr Lecture, Arr Lab

Linguistics for Language Teachers [SLAT-602]

BYU > College of Humanities > Center for Language Studies > Course

In-depth knowledge of language systems, i.e., phonology, morphology, syntax, semantics, and pragmatics.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Master's Action Research Project [SLAT-698R]

BYU > College of Humanities > Center for Language Studies > Course

Design, production, and evaluation of MA action research project in the student's language of emphasis.

Hours: 1.0-3.0 Credit, 0.0 Lecture, 0.0 Lab

Master's Thesis [SLAT-699R]

BYU > College of Humanities > Center for Language Studies > Course

Includes a review of the research literature and a report on the research study. Thesis students are encouraged to work with faculty members in their areas of research.

Hours: 0.5-6.0 Credit, 0.0 Lecture, 0.0 Lab

Methods of Teaching Foreign Languages [SLAT-577]

BYU > College of Humanities > Center for Language Studies > Course

Methods for teaching foreign languages. Topics include curriculum/lesson planning, teaching in the foreign language, contextualized approaches for teaching grammar and vocabulary, assessing language learning.

Hours: 3.0 Credit, 3.0 Lecture, 1.0 Lab
Prerequisites: Admission to SLaT MA program or permission of instructor.

Seminar in Second Language Teaching [SLAT-614R]

BYU > College of Humanities > Center for Language Studies > Course

Topics vary. In-depth discussion about issues relating to second language learning, teaching, and research.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Survey of Second Language Teaching and Acquisition: Theory and Practice [SLAT-601]

BYU > College of Humanities > Center for Language Studies > Course

Research in second language teaching; theories of language learning; historical trends and current practices and issues in language education.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Teaching and Learning About Culture [SLAT-613]

BYU > College of Humanities > Center for Language Studies > Course

Role of culture in second language courses; current theory and research on culture teaching and learning; techniques for teaching and assessing culture.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Teaching Listening and Speaking Skills [SLAT-611]

BYU > College of Humanities > Center for Language Studies > Course

Theory and research on teaching and learning listening and speaking skills; applying professional guidelines on listening and speaking; selecting and using appropriate techniques for teaching and assessing oral skills.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Teaching Reading and Writing Skills [SLAT-612]

BYU > College of Humanities > Center for Language Studies > Course

Theory and research on teaching and learning reading and writing skills; applying professional guidelines on reading and writing; selecting and using appropriate techniques for teaching and assessing literacy skills.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Using Media and Technology in Second Language Teaching and Research [SLAT-610]

BYU > College of Humanities > Center for Language Studies > Course

Using and applying various types of media and technology appropriate for second language teaching, learning, and research.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Belnap, Robert Kirk

BYU > College of Humanities > Center for Language Studies > Faculty

Professor
Center for Language Studies
Ph.D., University of Pennsylvania, 1991
Research Interest: The Teaching of Arabic as a Second Language; Language Policy and Planning; Sociolinguistics; The History of Arabic; L1 and L2 Literacy

Bourgerie, Dana Scott

BYU > College of Humanities > Center for Language Studies > Faculty

Professor
Center for Language Studies
Ph.D., Ohio State University, 1991
Research Interest: Sociolinguistics; East Asian Languages; Chinese Language Acquisition and Assessment

Brown, Newel Anthony

BYU > College of Humanities > Center for Language Studies > Faculty

Professor
Center for Language Studies
Ph.D., Bryn Mawr College, 2004
Research Interest: Russian and Second Language Acquisition

Christensen, Matthew Bruce

BYU > College of Humanities > Center for Language Studies > Faculty

Professor
Center for Language Studies
Ph.D., Ohio State University, 1994
Research Interest: Chinese Linguistics and Pedagogy; Chinese Culture and Communication Analysis

Cox, Troy L

Assistant Teaching Professor
Center for Language Studies
PhD, Brigham Young University, 2013
Research Interest: Instructional Psychology and Technology, Speech Recognition Technology, Language Proficiency Testing and Assessment

Damron, Julie Ann

Associate Teaching Professor
Center for Language Studies
Ph.D., Purdue University, 2000
Research Interest: Linguistics; TESL; Language Learning; Second Language Teaching Methods; Korean Language Education

Erickson, Robert Gammell

Assistant Professor
Center for Language Studies
Ph.D., Brigham Young University, 2000
Research Interest: Second Language Acquisition Theory and Assessment; Language Teaching Methodology

Gessel, Van Craig

Professor
Center for Language Studies
Ph.D., Columbia University, 1979
Research Interest: Japanese Language and Literature

Honey, David Brian

Professor
Center for Language Studies
Ph.D., University of California, Berkeley, 1988
Research Interest: Classical Chinese

Lundberg, Grant H

Professor
Center for Language Studies
Ph.D., University of Kansas, 1999
Research Interest: Slavic Languages and Literature; Historical Linguistics; Slavic Dialectology

Miller, John S

Professor
Center for Language Studies
Ph.D., Princeton University, 1988
Research Interest: East Asian Studies, Japanese & Comparative Literature, Oral Narrative and Translation Theory

Moody, Stephen J

BYU > College of Humanities > Center for Language Studies > Faculty

Assistant Professor
Center for Language Studies
Ph.D., University of Hawaii at Manoa, 2014
Research Interest: Quantitative Sociolinguistics; Language and Culture, Computer-Assisted Language Learning (CALL); Japanese Pragmatics and Pedagogy

Parry, Donald W

BYU > College of Humanities > Center for Language Studies > Faculty

Professor
Center for Language Studies
Ph.D., University of Utah, 1992
Research Interest: Ancient Near East, Hebrew Bible, Dead Sea Scrolls Translation

Ricks, Stephen David

BYU > College of Humanities > Center for Language Studies > Faculty

Professor
Center for Language Studies
Ph.D., University of California, 1982
Research Interest: Hebrew

Riep, Steven L

BYU > College of Humanities > Center for Language Studies > Faculty

Associate Professor
Center for Language Studies
Ph.D., University of California, Los Angeles, 2001
Research Interest: East Asian Languages and Cultures

Stoneman, Jack Chris

BYU > College of Humanities > Center for Language Studies > Faculty

Associate Professor
Center for Language Studies
Ph.D., Columbia University, 2006
Research Interest: Japanese Literature, Comparative Literature, Asian Art History

Warnick, J Paul

BYU > College of Humanities > Center for Language Studies > Faculty

Associate Professor
Center for Language Studies
Ph.D., Ohio State University, 1996
Research Interest: Japanese Language Pedagogy; Sociolinguistics; Pre-modern Japanese; Issues in Reading Japanese

J. Reuben Clark Law School

BYU > J. Reuben Clark Law School > Department

Address

Law
243 JRCB
801-422-7871
admissions@law.byu.edu

Programs

Law [240160]
Law - Comparative [240161]

Students admitted to the highly competitive programs of the Law School receive a breadth and depth of training that prepare them to function in the wide range of activities that occupy the professional lawyer's life. Students gain firsthand experience with a variety of teaching and learning methods, among them Socratic or inductive teaching, problem solving, seminars, individual research, and clinical experience.

The specific objective of the curriculum is to maximize the student's mastery of legal reasoning and legal method—in addition to teaching a core of the basic substantive rules of law and imparting an appreciation for its institutions and traditions.

Students are taught to analyze complex factual situations; to separate the relevant from the irrelevant; and to reason inductively, deductively, and by analogy. Students are also schooled in the arts of written and oral advocacy.

Two degrees are offered through the J. Reuben Clark Law School: Law-JD and Comparative Law—LLM. The university has also approved programs whereby qualified students can obtain a concurrent master's degree in business administration, public administration, accountancy, education, or public policy while pursuing a law degree.

The Law School seats approximately 140 students each year in its first-year class. The juris doctorate (JD) may be completed no earlier than five fall or winter semesters and no later than sixty months after a student has begun law study at an ABA-approved law school. The LLM students receive their degree on completion of 24 credit hours earned during at least two semesters in residence.

Fax: (801) 422-0389

Dean: Gordon Smith
Associate Dean: D. Carolina Nuñez
Associate Dean: A. Christine Hurt
Assistant Dean and Graduate Coordinator: Stacie Stewart
Admissions Director: Bryan Hamblin
Admissions Coordinator:

Resources & Opportunity

J. Reuben Clark Law School Building. The J. Reuben Clark Law School building is located near the eastern edge of campus. Its five floors house classrooms with electrical connectivity to each student seat, wireless capabilities from all locations within the building, faculty offices, and the law library.

Howard W. Hunter Law Library. The Howard W. Hunter Law Library is one of the leading law libraries in the country and contains an extensive collection of legal materials in both print and electronic format. In addition to offering the latest in technological facilities and services, the library also provides individual study carrels with hookups for computer access to networks, as well as study rooms for group use. Law students also have access to the holdings in the university library, the Harold B. Lee Library.

Cocurricular Programs. Law students publish the Brigham Young University Law Review, the BYU Journal of Public Law, the Brigham Young University Education and Law Journal, and the BYU International Law and Management Review. Law students also participate in the Moot Court Board of Advocates and Trial Advocacy programs.

Externship Program. This program offers an opportunity for students to participate in practical training with private law firms, the judiciary, governmental offices, or international regional offices of legal counsel for The Church of Jesus Christ of Latter-day Saints in many foreign nations.

Student Organizations. Within the Law School, students may participate in a number of organizations, among them the Student Bar Association, the Alternative Dispute Resolution (ADR) Society, the American Constitution Society for Law and Policy (ACS), the Black Law Students Association (BLSA), the Family Law Society, the Federalist Society, the Government and Politics Legal Society (GPLS), the Immigration Law Forum, the International Law Student Association (ILSA), Jail Outreach, Law Cycling Club (Legal Spin), the Minority Law Student Association (MLSA), the Native American Law Student Association (NALSA), the Natural Resources Law Society, Phi Delta Phi, the Public Interest Law Foundation (PILF), Real Estate Law Society, Running Objection, the Student Intellectual Property Law Association (SIPLA), the Sports and Entertainment Law Society (SpEnt), and Women In Law (WIL). For spouses of married law students there is Law Partners, and for single law students there is the Law Singles Society. Many law students also participate in the 5th Grade Mentoring Program.

Financial Assistance

Some scholarship and loan funds are available to law students. Those interested in these opportunities should inquire at the Law School Admissions Office and the BYU Financial Aid Office.

Tuition. Since a significant portion of the cost of operating the Law School comes from the tithes of The Church of Jesus Christ of Latter-day Saints, students and the families of students who are tithe-paying members have already made a significant contribution to the university and are thus charged a lower tuition than nonmembers. This disparity is similar to the higher tuition charged by law schools of state universities to nonresidents.

Annual tuition: $11,620 LDS
$23,240 non-LDS

Law (JD) [240160]

The J. Reuben Clark Law School offers a course of graduate professional study leading to the juris doctorate (JD) degree. Additional information about legal education, admissions standards, and procedures-including information about the Law School Admission Test (LSAT) and registration with the Law School Credential Assembly Service (LSCAS)-can be obtained from the admissions office of the Law School or on our Web site at http://law.byu.edu/site/current-students/dean-students-office

Requirements for Degree.

> Credit hours (90): credits toward the JD degree may be completed no earlier than five fall or winter semesters and no later than sixty months after a student has begun law study at an ABA-approved law school.
> Required courses: the following first-year courses are required for graduation: Civil Procedure, Contracts, Criminal Law, Legislation and Regulation, Property, Structures of the Constitution, Torts, Introduction to Legal Research and Writing and Introduction to Advocacy. Each student is also required to take Professional Responsibility during the second or third year.
> Substantial writing paper: each student will be required to prepare, during his or her second or third year, a substantial writing paper of satisfactory quality.
> Professional skills requirement: each student must complete at least two credit hours of externship credit or at least one of the second-year or third-year courses designated as a "Professional Skills Course."
> Residency requirement: graduation requires six regular semesters in residence. Enrollment in summer programs can reduce the number of regular semesters from six to five.
> Graduation interview: to be held with the Law School registrar four months prior to graduation.

Required Test

LSAT or GRE

Additional Requirements

1. Law School Application Form
2. Two letters of recommendation: at least one academic
3. Personal statement
4. JDCAS Law School Report
5. Resume
6. $50 application fee

Law - Comparative (LLM) [240161]

The J. Reuben Clark Law School created the Master of Law (LLM) program in 1988 to provide an opportunity for lawyers trained in jurisdictions outside the United States to study the U.S. legal system. The program provides maximum exposure to the U.S. legal system and interaction between master of law students and students seeking the juris doctorate degree. Students obtain a solid foundation in the basic principles of U.S. law while being allowed the flexibility to pursue personal academic interests. To ensure a superior educational experience for students in the program, admission is generally limited to six to eight students per year.

The master of law (LLM) degree is conferred upon successful completion of a minimum 24 credit hours earned during at least two semesters in residence following completion of a JD degree or its equivalent outside the United States.

Requirements for Degree.

> **Credit hours (24): credits toward the LLM degree must be earned during at least two regular BYU Law School semesters.**
> **Required courses: each student will be required to complete Introduction to American Law as well as Legal Research and Writing during the fall semester. Additionally, each student is required to complete one of the regular first-year courses in the JD program. The course chosen to fulfill this requirement is determined by the student in consultation with his or her faculty-appointed advisor.**
> **Written thesis: a student may earn up to 6 credit hours for a written thesis project supervised by an appointed thesis advisor and defended before that advisor and two additional readers. Although the written thesis is encouraged, it is not required for completion of the LLM degree.**
> **The student chooses the remainder of his or her curriculum from the regular juris doctor course offerings.**

Required Test

TOEFL (score of 590 if paper-based, 96 if internet-based or IELTS band score of at least 7.0)

Additional Requirements

1. **Law School Application form**
2. **Letters of recommendation**
3. **Official verification to practice law in native country**
4. **Financial information**
5. **$50 application fee**
6. **Credential evaluation**

Accounting for Lawyers [LAW-612]

This course teaches generally accepted accounting principles, practices, and standards. Includes information about accrual accounting and revenue recognition, double-entry record keeping, development of accounting principles and auditing standards, the time value of money, financial statement analysis, and contingencies. Intended for law students who do not have an accounting background. Students who have a substantial background in accounting or who have recently taken an introductory accounting class are ineligible to take or receive credit for this course.

Hours: 2.0-3.0 Credit, Arr Lecture, 0.0 Lab
Prerequisites: First-year law courses.

Administrative Law [LAW-602]

An examination of the administrative process. The course examines why administrative agencies are created, how they obtain information and the uses of that information, what proceedings (rulemaking/adjudication) agencies can commence, and what controls over agency action (political/judicial) exist. The role of the attorney in this process is emphasized.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: First-year law courses.

Advanced Comparative Law 1 [LAW-710]

Papers written on transnational and comparative topics during fall prepared for possible inclusion in law review.

Hours: 2.0 Credit, 2.0 Lecture, 0.0 Lab
Prerequisites: First-year law courses. Editing experience or completion of an international or comparative paper prior to the start of the course.

Advanced Estate Planning [LAW-637]

BYU > J. Reuben Clark Law School > J. Reuben Clark Law School > Course

An examination of the effective disposition of wealth by inter vivos gift and testamentary transfer; income, estate, and gift tax considerations; use of trust form; use of insurance; use of jointly held property; planning for continuation or disposition of client's business interests.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: First-year law courses.

Alternative Dispute Resolution [LAW-715]

BYU > J. Reuben Clark Law School > J. Reuben Clark Law School > Course

Theory and practice of dispute resolution, emphasizing alternatives to traditional litigation such as negotiation, mediation, and arbitration as well as "hybrids."

Hours: 2.0 Credit, 2.0 Lecture, 0.0 Lab
Prerequisites: First-year law courses.

American Legal History [LAW-606]

BYU > J. Reuben Clark Law School > J. Reuben Clark Law School > Course

Survey of American law from the colonial and early national period to the present with special emphasis on public law, federal-state relations, individual rights, legal thought, judicial review, legal institutions, and civil procedure.

Hours: 2.0-3.0 Credit, Arr Lecture, Arr Lab
Prerequisites: First-year law courses.

Ancient Laws in the Bible and Book of Mormon [LAW-607]

BYU > J. Reuben Clark Law School > J. Reuben Clark Law School > Course

Comparative study of legal topics in the law codes and legal systems of the Old Testament, legal narratives in the New Testament, the trials of Jesus and Paul, and the legal cases in the Book of Mormon, as well as the codes of the Sumerians, Babylonians, Hittites, Assyrians, and Greek and Roman law.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: First-year law courses.

Antitrust [LAW-605]

BYU > J. Reuben Clark Law School > J. Reuben Clark Law School > Course

Development of legal doctrine under the Sherman Act and supplemental legislation, including price fixing, division of market, monopolization, mergers, tying and exclusive dealing arrangements, boycotts, and special relationships between principles of patent and antitrust law. Emphasis: the relationships between principles of law and economics, examined in the context of certain key cases.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: First-year law courses.

Appellate Brief Writing [LAW-743]

BYU > J. Reuben Clark Law School > J. Reuben Clark Law School > Course

Persuasive writing techniques, organization, strategy-priority of arguments, handling a circuit split, policy arguments, standards of review, persuasion techniques, handling adverse authority, and effective counter argument.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: First-year law courses.

Appellate Practice and Procedure [LAW-627]

BYU > J. Reuben Clark Law School > J. Reuben Clark Law School > Course

Explores a range of procedural issues that arise in appellate litigation in the federal and state courts, including preservation of issues; appealability; parties on appeal; perfecting an appeal; relief pending appeal; and standards of review. Students will consider these issues as they arise in cases and rules in federal and state appellate systems, with some comparative analysis of the differences between the two systems.

Hours: 2.0-3.0 Credit, Arr Lecture, 0.0 Lab
Prerequisites: First-year law courses.

Arbitration [LAW-629]

BYU > J. Reuben Clark Law School > J. Reuben Clark Law School > Course

Arbitration is an adversarial, evidentiary, adjudication process (like a less formal, private bench trial) in which parties submit a dispute for a (usually binding) decision by an arbitrator (or a panel of three arbitrators). Arbititration can be either mandatory or voluntary, and binding or non-binding; this course covers mandatory binding arbitration. Arbitration is an integral part of the practice of law for both litigators and transactional lawyers.

Hours: 2.0-3.0 Credit, 3.0 Lecture, 0.0 Lab

Asylum [LAW-604]

BYU > J. Reuben Clark Law School > J. Reuben Clark Law School > Course

Developing an in-depth understanding and practical knowledge of the procedures, substantive requirements, and best practices relating to representing foreign-born clients seeking protection in the United States from persecution abroad based on race, religion, nationality, membership in a particular social group, or political opinion.

Hours: 2.0-3.0 Credit, 3.0 Lecture, 0.0 Lab

Banking Law [LAW-649]

BYU > J. Reuben Clark Law School > J. Reuben Clark Law School > Course

Review the laws affecting commercial banks and thrift institutions, the functions of the various federal and state regulatory agencies, the development of innovative forms of financial services, the effects of electronic technology upon banking law and interstate banking. Provides an overview of the different regulatory regimes affecting financial institutions (e.g., insurance companies, broker-dealers, investment banks, private funds, and depository institutions), with primary focus on banking law and regulation.

Hours: 2.0-3.0 Credit, Arr Lecture, 0.0 Lab
Prerequisites: First-year law courses.

Bankruptcy [LAW-608]

BYU > J. Reuben Clark Law School > J. Reuben Clark Law School > Course

A practical course for lawyers who plan on representing businesses or individuals in today's economy. The relationship between debtors and creditors under both state debt collection law and bankruptcy law, with an emphasis on bankruptcy law. Bankruptcy issues from both a consumer and business perspective, covering bankruptcy and commercial principals.

Hours: 2.0-3.0 Credit, Arr Lecture, 0.0 Lab
Prerequisites: First-year law courses.

Basic Mediation [LAW-724]

BYU > J. Reuben Clark Law School > J. Reuben Clark Law School > Course

Fundamental communication and mediation skills. Simulated exercises and role playing.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: First-year law courses.

Blockchain and Cryptocurrency Law [LAW-775]

BYU > J. Reuben Clark Law School > J. Reuben Clark Law School > Course

Investigation of market, regulatory, and enforcement challenges regarding private payment systems, cryptocurrencies, and other uses of blockchain technology.

Hours: 2.0 Credit, 2.0 Lecture, 0.0 Lab
Prerequisites: Completion of first-year curriculum.

Business Ethics for Lawyers [LAW-770]

BYU > J. Reuben Clark Law School > J. Reuben Clark Law School > Course

Examination of the theoretical and foundational roots of business ethics and business ethics issues that confront employees and managers of corporations and their lawyers.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Completion of first-year curriculum.

Business Organizations [LAW-610]

BYU > J. Reuben Clark Law School > J. Reuben Clark Law School > Course

Introduction to business associations, agency, uniform partnership acts, the essentials of corporate formation, shareholders rights, special problems of closely held businesses, preemptive rights, etc.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: First-year law courses.

Business Reorganization Under the Bankruptcy Code [LAW-623]

BYU > J. Reuben Clark Law School > J. Reuben Clark Law School > Course

A practical analysis of the law and policy underlying business reorganizations in Chapter 11: from filing of the petition to the confirmation of the plan.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: First-year law courses.

Charitable Organizations [LAW-677]

BYU > J. Reuben Clark Law School > J. Reuben Clark Law School > Course

Practical and theoretical concerns in organizing and representing nonprofit or tax-exempt entities.

Hours: 2.0 Credit, 2.0 Lecture, 0.0 Lab
Prerequisites: First-year law courses.

Child Advocacy [LAW-654]

BYU > J. Reuben Clark Law School > J. Reuben Clark Law School > Course

Learn about the juvenile court system and how issues of abuse, neglect and delinquency are handled. Learn how the judicial system affects the lives of children and how advocates can make a difference in the system. Opportunity to "shadow" attorneys from the Guardian Ad Litem's office, the Public Defender's and Attorney General's offices, and to sit in court with a Juvenile Court Judge. Students will tour the Detention Center, the House of Hope, Independence High School, Lightening Peak, Family Support and Treatment and the Children's Justice Center.

Hours: 2.0 Credit, 2.0 Lecture, 0.0 Lab
Prerequisites: First-year law courses.

Children and the Law [LAW-633]

BYU > J. Reuben Clark Law School > J. Reuben Clark Law School > Course

Issues relating to state regulation of parent-child relations, including children's rights, parent rights, juvenile courts, adoption, health decisions, educational decisions, child abuse and neglect, youth status offenses, and delinquency.

Hours: 2.0 Credit, 2.0 Lecture, 0.0 Lab
Prerequisites: First-year law courses.

Church and State in the United States [LAW-702]

BYU > J. Reuben Clark Law School > J. Reuben Clark Law School > Course

U.S. and international religious liberty issues. Focuses on free exercise and establishment clauses of First Amendment.

Hours: 2.0 Credit, 2.0 Lecture, 0.0 Lab
Prerequisites: First-year law courses.

Civil Discovery [LAW-669]

BYU > J. Reuben Clark Law School > J. Reuben Clark Law School > Course

Students will learn about the discovery process in civil litigation, including depositions, the production of documents, interrogatories, requests for admissions, mandatory disclosures, subpoenas, expert witnesses, and electronic discovery.

Hours: 2.0 Credit, 2.0 Lecture, 0.0 Lab
Prerequisites: First-year law courses.

Civil Procedure [LAW-515]

BYU > J. Reuben Clark Law School > J. Reuben Clark Law School > Course

A basic study of the operation of courts, including an introduction to the organization of state and federal courts and relationships between them. Topics studied will include jurisdiction over persons, things, and subject matter; venue; the scope of litigation as to claims, defenses, and parties; pleading, pretrial motions, discovery, and pretrial conferences; trials and the functions of judges, juries, and lawyers; appeals and the role of appellate courts; and the enforcement and finality of judgments and decrees.

Hours: 4.0 Credit, 4.0 Lecture, 0.0 Lab
Prerequisites: Admission to law school.

Civil Rights [LAW-675]

BYU > J. Reuben Clark Law School > J. Reuben Clark Law School > Course

Focuses on the current importance and application of the civil rights laws enacted after the Civil War and in the modern civil rights era. These laws provide the essential foundation for modern litigation on a wide range of constitutional and statutory protections and provide the basis for federal and private enforcement of statutory civil rights protections.

Hours: 2.0-3.0 Credit, Arr Lecture, 0.0 Lab
Prerequisites: First-year law courses.

Civil Rights Skills Practicum [LAW-725]

BYU > J. Reuben Clark Law School > J. Reuben Clark Law School > Course

Civil Rights litigation under section 42 U.S.C. § 1983 (Section 1983) has played a key role in reforming governmental agency operations and the provision of public services. Section 1983 allows citizens to bring suit against governmental agencies and their officers for deprivations of federal constitutional and statutory rights. A key focus of the course will be on police and prison official misconduct. Will allow students to integrate legal doctrine, theory, professional lawyering skills and legal ethics through in-class simulation experiences.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Civil Trial Practice 1 [LAW-705]

BYU > J. Reuben Clark Law School > J. Reuben Clark Law School > Course

The skill of interviewing, drafting, negotiating, and using time efficiently in the context of preparing a legal matter; carrying a case through all the stages of preparation and litigation.

Hours: 2.0 Credit, 2.0 Lecture, 0.0 Lab
Prerequisites: First-year law courses.

Civil Trial Practice 2 [LAW-706]

BYU > J. Reuben Clark Law School > J. Reuben Clark Law School > Course

The skills of interviewing, drafting, negotiating, and using time efficiently in the context of preparing a legal matter; carrying a case through all the stages of preparation and litigation.

Hours: 2.0 Credit, 2.0 Lecture, 0.0 Lab
Prerequisites: First-year law courses.

Clinical Alliance [LAW-780R]

BYU > J. Reuben Clark Law School > J. Reuben Clark Law School > Course

Live-client interactions in field placements under the supervision of seasoned practitioners. Emphasis on the development of professional skills, including legal research and writing, counseling, interviewing, negotiation, mediation, and problem solving.

Hours: 2.0-6.0 Credit, 1.0 Lecture, 2.0 Lab

Cocurricular Programs [LAW-792R]

BYU > J. Reuben Clark Law School > J. Reuben Clark Law School > Course

Hours: 1.0 Credit, 0.0 Lecture, 0.0 Lab
Prerequisites: First-year law courses.

Cocurricular-- Special Assignments [LAW-793R]

BYU > J. Reuben Clark Law School > J. Reuben Clark Law School > Course

Hours: 1.0-2.0 Credit, 0.0 Lecture, 0.0 Lab
Prerequisites: First-year law courses; participation in cocurricular programs.

Commercial Paper [LAW-616]

BYU > J. Reuben Clark Law School > J. Reuben Clark Law School > Course

Negotiable instruments (checks, drafts, notes) under Articles 3 and 4 of the Uniform Commercial Code; letters of credit and electronic transfers.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: First-year law courses.

Community and Economic Development Representation [LAW-787]

BYU > J. Reuben Clark Law School > J. Reuben Clark Law School > Course

Students participate in simulated exercises on transactional matters which are commonly addressed through local community/economic development and redevelopment efforts. Students will have the opportunity to role play advising clients.

Hours: 2.0-3.0 Credit, Arr Lecture, 0.0 Lab
Prerequisites: First-year law courses.

Community Lawyering [LAW-613]

BYU > J. Reuben Clark Law School > J. Reuben Clark Law School > Course

Christian reconstruction of the lawyer's role in public life, especially how that role is performed among the disadvantaged.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: First-year law courses.

Comparative Constitutional Law [LAW-708]

BYU > J. Reuben Clark Law School > J. Reuben Clark Law School > Course

Introduction to the major systems of constitutional judicial review outside the United States with a focus on equal protection, separation of powers, constitutional interpretation, and fundamental rights.

Hours: 2.0-3.0 Credit, Arr Lecture, 0.0 Lab
Prerequisites: First-year law courses.

Comparative Law [LAW-617]

BYU > J. Reuben Clark Law School > J. Reuben Clark Law School > Course

Non-common-law legal tradition, emphasizing civil law. Legal traditions of Islamic and socialist countries.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: First-year law courses.

Complex Litigation [LAW-762]

BYU > J. Reuben Clark Law School > J. Reuben Clark Law School > Course

Building on the basic civil procedure course by focusing on the substantive doctrines and procedural requirements relating to complex litigation in the United States, including class actions, multidistrict litigation, and other high-stakes litigation. Topics to be covered include but are not limited to certification of a class, removal, joinder, transfer, settlement, and federal statutes relating to class actions.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Computer-Based Practice System [LAW-689]

BYU > J. Reuben Clark Law School > J. Reuben Clark Law School > Course

Teaches students to use document automation tools to develop automated legal documents and practice systems, and examines how these knowledge tools are used to improve legal service delivery.

Hours: 2.0 Credit, 2.0 Lecture, 0.0 Lab
Prerequisites: First-year law courses.

Conflict of Laws [LAW-619]

BYU > J. Reuben Clark Law School > J. Reuben Clark Law School > Course

Jurisdiction issues, choice of law, and recognition of judgments in cases involving interstate and state-federal conflicts.

Hours: 2.0-3.0 Credit, ARR Lecture, 0.0 Lab
Prerequisites: First-year law courses.

Contracts [LAW-510]

BYU > J. Reuben Clark Law School > J. Reuben Clark Law School > Course

Examination of the promises enforced by law, and the nature of the protection given. Inquiry made into the formation, performance, and discharge of contracts; their assignment, termination, and modification; and the variety, scope, and limitations on remedies. Attention will be given to Article 2 of the Uniform Commercial Code.

Hours: 4.0 Credit, 4.0 Lecture, 0.0 Lab
Prerequisites: Admission to law school.

Copyright Law [LAW-728]

BYU > J. Reuben Clark Law School > J. Reuben Clark Law School > Course

Copyright?s purpose, statutory structure, application in the courts, and role within intellectual property law and society. Topics include the subject matter requirements for copyrightability; the exclusive rights of copyright owners; duration, ownership, and transfer; copyright infringement litigation; contributory and vicarious liability; and fair use.

Hours: 2.0-3.0 Credit, Arr Lecture, 0.0 Lab
Prerequisites: First-year law courses.

Corporate Compliance and Legal Risk Management [LAW-772]

BYU > J. Reuben Clark Law School > J. Reuben Clark Law School > Course

Considers the theory and practice of risk assessment, compliance systems, and related corporate culture.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Completion of the first-year curriculum.

Corporate Counsel [LAW-730]

BYU > J. Reuben Clark Law School > J. Reuben Clark Law School > Course

The role of the corporate counsel in setting the direction of the corporation, navigating complex internal relationships, and managing challenging external relationships with various corporate stakeholders.

Hours: 2.0-3.0 Credit, Arr Lecture, Arr Lab
Prerequisites: First-year law courses. Law 610, Business Associations, is required prior to or concurrently with this course.

Corporate Taxation [LAW-642]

BYU > J. Reuben Clark Law School > J. Reuben Clark Law School > Course

Focuses on the federal system of taxation for corporations under Subchapter C of the Internal Revenue Code and their shareholders.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Corruption [LAW-667]

BYU > J. Reuben Clark Law School > J. Reuben Clark Law School > Course

Theories, causes and consequences of corruption, and select regimes established to combat and measure it, particularly the U.S. Foreign Corrupt Practices Act and, to a lesser extent, the 2010 UK Bribery Act, the UN Convention Against Corruption, and OECD Anti-Bribery Convention.

Hours: 2.0 Credit, 2.0 Lecture, 0.0 Lab

Criminal Law [LAW-525]

BYU > J. Reuben Clark Law School > J. Reuben Clark Law School > Course

Problems in defining what conduct should be subjected to criminal penalties; the limitations of criminal law as a means for prevention and control of undesirable conduct.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Admission to law school.

Criminal Procedure: Adjudication [LAW-691]

BYU > J. Reuben Clark Law School > J. Reuben Clark Law School > Course

Criminal procedure from the filing of charges through the appeals. Pretrial release and detention, the preliminary hearing, the grand jury, the charging instrument, joinder and severance, discovery, selected trial issues, plea bargaining, sentencing and appeals.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Criminal Procedure: Investigation [LAW-603]

BYU > J. Reuben Clark Law School > J. Reuben Clark Law School > Course

Problems in administering a system of criminal law; constitutional and policy limitations upon public officers in dealing with suspected, charged, and convicted offenders.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: First-year law courses.

Criminal Trial Advocacy [LAW-690]

BYU > J. Reuben Clark Law School > J. Reuben Clark Law School > Course

This course is designed for students who are interested in a career in criminal law, and have taken the first-year criminal law course. While it would be helpful for students to have taken criminal trial practice first, it is not a prerequisite. The course curriculum covers many of the aspects of criminal trial practice beyond the basics of courtroom practice. Subjects to be covered include criminal discovery practice, grand jury practice, representation of clients pre-indictment, pretrial motion practice (motions to suppress, etc.), jury selection and jury instructions, affirmative defenses (insanity, alibi, self defense, etc.), use of experts in criminal cases and investigators and agents, organizing for trial, use of exhibits, bench and jury trial strategies as well as advocacy before judges versus juries, sentencing considerations, and post-trial motions to include perfecting an appeal, and appeals.

Hours: 2.0 Credit, 2.0 Lecture, 0.0 Lab

Criminal Trial Practice [LAW-630]

BYU > J. Reuben Clark Law School > J. Reuben Clark Law School > Course

This course will develop the art and practical skill of trial advocacy. It will focus on typical situations that arise in the trial of a criminal case. Emphasis will be placed on the academic theory, as well as the technique of the whole range of advocacy skills. The developed skills will be transferable to general civil litigation.

Hours: 2.0 Credit, 2.0 Lecture, 0.0 Lab
Prerequisites: First-year law courses.

Cyberlaw [LAW-692]

Covers issues in regulating cyberspace (both nationally and internationally), privacy, ownership and access, and speech and content. Briefly reviews intellectual property issues online, primarily copyright.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: First-year law courses.

Directed Readings [LAW-791R]

Hours: 1.0-2.0 Credit, 0.0 Lecture, 0.0 Lab
Prerequisites: First-year law courses.

Directed Research [LAW-790R]

Hours: 1.0-2.0 Credit, 0.0 Lecture, 0.0 Lab
Prerequisites: First-year law courses.

Disaster Law [LAW-693]

Students will learn to analyze the human contributions to "natural disasters" and to develop tools for legislating in the face of uncertainty, designing fair compensation and insurance schemes, and rebuilding communities devastated by disasters.

Hours: 2.0-3.0 Credit, Arr Lecture, 0.0 Lab
Prerequisites: First-year law courses.

Domestic Relations [LAW-694]

Learn about the practical issues involved in handling a divorce case. Study the process, the documents and the primary issues involved in divorce and custody cases. Students will have the opportunity to work with real cases through the Family Justice Center on Tuesday evenings from 5:00-9:00 p.m. Students do not need to be available every Tuesday or for the full range of hours.

Hours: 2.0 Credit, 2.0 Lecture, 0.0 Lab
Prerequisites: First-year law courses.

Domestic Violence Intervention [LAW-757]

Learn about the dynamics involved within abusive families and how those dynamics play out in court. Learn how domestic violence is treated in each context that might be brought to court: criminal actions, protective and restraining orders, personal injury cases, custody and divorce actions and within the juvenile court system. Students will have the opportunity to work with real cases through the Family Justice center on Tuesday evenings from 5:00-9:00 p.m. Students do not need to be available every Tuesday or for the full range of hours.

Hours: 2.0 Credit, 2.0 Lecture, 0.0 Lab
Prerequisites: First-year law courses.

Elder Law [LAW-758]

BYU > J. Reuben Clark Law School > J. Reuben Clark Law School > Course

Learn how to handle legal issues common to the elderly: estate planning and medical directives; consumer fraud; public benefits such as Medicaid, Medicare, social security; nursing homes; property issues; and elder abuse. Students will meet with elderly clients on a weekly basis at local senior citizen centers. Students will have the opportunity to draft simple wills, medical directives, and deeds in behalf of actual clients.

Hours: 2.0 Credit, 2.0 Lecture, 0.0 Lab
Prerequisites: First-year law courses.

Election Law [LAW-716]

BYU > J. Reuben Clark Law School > J. Reuben Clark Law School > Course

Exploration of the legal issues related to elections and politics with a particular emphasis on the most recent election cycle. Voting, political parties, legislative districting, ballot propositions and campaign finance. Emphasis on federal statutes and regulations that govern elections. Students will read and discuss the major court decisions which interpret and apply the election and campaign laws. In addition to lectures and class discussion, the course will frequently employ guest speakers to explore the practical, real world effects of the laws we study. In some semesters, this course may be taught exclusively online.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Completion of first-year curriculum.

Electronic Discovery & Digital Evidence [LAW-670]

BYU > J. Reuben Clark Law School > J. Reuben Clark Law School > Course

Statutes, regulations, and case law related to the identification, preservation, collection, processing, hosting, review and production of electronic information. Ways in which to proactively manage data to reduce privacy, security, and litigation risks and costs. Hands-on experience through practical exercises and utilizing software to accomplish specific litigation or eDiscovery tasks.

Hours: 2.0 Credit, 2.0 Lecture, 0.0 Lab

Employment Discrimination Law [LAW-697]

BYU > J. Reuben Clark Law School > J. Reuben Clark Law School > Course

Examines the theories and policies underlying anti-discrimination laws and the ever-shifting statutory, regulatory, and case law relating to the prevention of unlawful discrimination in the workplace. Focuses on existing anti-discrimination laws, as well as discussing the procedural process for prosecuting and defending discrimination claims.

Hours: 2.0-3.0 Credit, Arr Lecture, 0.0 Lab
Prerequisites: First-year law courses.

Employment Law [LAW-622]

BYU > J. Reuben Clark Law School > J. Reuben Clark Law School > Course

Employment discrimination: benefits, compensation, and hours; workplace safety and health. Offers an overview of the important legal issues that are raised in the context of the employment relationship. Discussion of employment as a contractual agreement, including tort and statutory protections, such as wrongful discharge, wage and hour laws (FLSA), leave (e.g. FMLA), safety (OSHA and worke

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: First-year law courses.

Environmental Law [LAW-624]

BYU > J. Reuben Clark Law School > J. Reuben Clark Law School > Course

A study of the major federal laws relating to environmental protection, including the Endangered Species Act, the Clean Air Act, the Clean Water Act, the National Environmental Policy Act, and CERCLA.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: First-year law courses.

Environmental Law & Policy Seminar [LAW-638]

BYU > J. Reuben Clark Law School > J. Reuben Clark Law School > Course

The historical, political, and intellectual influences that shape natural resource and environmental law with a focus on the tools to allocate, regulate and manage common-pool resources, such as air, water, wildlife, and resources associated with the public lands.

Hours: 2.0 Credit, 2.0 Lecture, 0.0 Lab

Estate Planning [LAW-726]

BYU > J. Reuben Clark Law School > J. Reuben Clark Law School > Course

Problem-based examination of planning strategies commonly used to accumulate, manage, and dispose of family wealth.

Hours: 2.0-3.0 Credit, Arr Lecture, 0.0 Lab
Prerequisites: First-year law courses.

European Union Law [LAW-688]

BYU > J. Reuben Clark Law School > J. Reuben Clark Law School > Course

Introduces students to both the governing institutions of the EU and the structure of the EU legal system. Examines the content and effects of those parts of EU law that are most important to making the EU function as a single community.

Hours: 2.0-3.0 Credit, Arr Lecture, 0.0 Lab
Prerequisites: First-year law courses.

Evidence [LAW-625]

BYU > J. Reuben Clark Law School > J. Reuben Clark Law School > Course

An examination of the law of evidence, including the principles governing the admissibility of evidence, the competency of witnesses, and the function of lawyer, judge, and jury in the presentation and evaluation of evidence.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: First-year law courses.

Externship [LAW-599R]

BYU > J. Reuben Clark Law School > J. Reuben Clark Law School > Course

Students are able to earn one credit for each 50 hours of work performed in an approved externship.

Hours: 1.0-10.0 Credit, ARR Lecture, 0.0 Lab
Prerequisites: First-year law courses.

Family Law [LAW-632]

BYU > J. Reuben Clark Law School > J. Reuben Clark Law School > Course

Introduces general principles, leading cases and statutes, contemporary legal issues, and doctrinal trends in the law regulating domestic relationships. Spousal and parent-child relations are studied in a creation-ongoing-termination sequence.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: First-year law courses.

Federal Courts 1 [LAW-635]

BYU > J. Reuben Clark Law School > J. Reuben Clark Law School > Course

This course provides an important foundation for litigation, civil rights, and government practice careers and for judicial clerkships. It provides an advanced study of the federal structure of our judicial system, with emphasis on the relationship and respective powers of federal and state courts and the relationship between the legislative, executive, and judicial branches of the federal g

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: First-year law courses.

Federal Indian Law [LAW-645]

BYU > J. Reuben Clark Law School > J. Reuben Clark Law School > Course

Law of the federal government and the states respecting Native Americans and their land. Relationship of European discoverers and Native Americans during colonial period; Native American treaties, executive orders, and agreements; changing United States policy respecting Native Americans; federal, state, and tribal jurisdictions, civil and criminal; tribal courts; Native American hunting and fishing rights, water rights, and civil rights.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: First-year law courses.

Federal Taxation 1 [LAW-640]

BYU > J. Reuben Clark Law School > J. Reuben Clark Law School > Course

A study of federal personal income tax, with an introduction to business and corporate income tax and federal tax procedure. Emphasis is placed on developing the student's ability to exam and understand statutory, judicial, and administrative tax law and to apply the law in solving specific problems.

Hours: 4.0 Credit, 4.0 Lecture, 0.0 Lab
Prerequisites: First-year law courses.

Federal Taxation 2 [LAW-641]

BYU > J. Reuben Clark Law School > J. Reuben Clark Law School > Course

This course covers in detail the federal income tax consequences flowing from the creation, operation, dissolution, and sale of partnerships, limited liability companies, and corporations and examines federal tax considerations bearing on the choice between conducting a business in partnership, limited liability company, or corporate form.

Hours: 4.0 Credit, 4.0 Lecture, 0.0 Lab
Prerequisites: Law 640 or instructor approval; first-year law courses.

Foundations of Law and Leadership [LAW-721]

BYU > J. Reuben Clark Law School > J. Reuben Clark Law School > Course

Moral relational dynamics of leadership. Whether practicing law, working in the political arena, or advising corporate leaders, one???s influence depends more on one???s emotional intelligence than it does on one???s cognitive abilities. Exploration of the foundational principles and practices that position and enable people to positively influence and lead others.

Hours: 2.0 Credit, 2.0 Lecture, 0.0 Lab

Freedom of Religion [LAW-609]

BYU > J. Reuben Clark Law School > J. Reuben Clark Law School > Course

Study of the Free Exercise and Establishment Clauses of the First Amendment and related issues.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: First-year law courses.

Fundamental Lawyering Skills [LAW-734]

BYU > J. Reuben Clark Law School > J. Reuben Clark Law School > Course

The primary focus of this survey course is on interviewing, counseling, mediation, negotiation and persuasive fact analysis—skills deemed essential to the overall success of a lawyer.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Government and Legislative Representation [LAW-786]

BYU > J. Reuben Clark Law School > J. Reuben Clark Law School > Course

Students participate in simulated exercises to review and draft legislation, to prepare legislative findings and "records" to support draft legislation and to prepare oral presentations of their work.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Health Law and Policy [LAW-707]

BYU > J. Reuben Clark Law School > J. Reuben Clark Law School > Course

An interdisciplinary introduction to the largest industry in the United States, the health care industry. Subjects to be covered include health care regulatory law (EMTALA, HIPAA, ERISA, Medicare, Medicaid), health care policy with emphasis on access to health care, and how to advocate for health care consumers.

Hours: 2.0 Credit, 2.0 Lecture, 0.0 Lab
Prerequisites: First-year law courses.

Immigrant Rights [LAW-732]

BYU > J. Reuben Clark Law School > J. Reuben Clark Law School > Course

This course is devoted to an exploration of the rights and obligations aliens have when they are within U.S. borders. Students will examine when and how these rights and obligations are complicated for individuals and communities by a lack of U.S. citizenship. For example, are noncitizens eligible for welfare benefits or public employment? Should lawful permanent residents be allowed t

Hours: 2.0-3.0 Credit, Arr Lecture, Arr Lab
Prerequisites: First-year law courses.

Immigration Law [LAW-704]

BYU > J. Reuben Clark Law School > J. Reuben Clark Law School > Course

Overview of the powers to regulate immigration law; admission and removal of foreigners; refugee and asylum law; impact of business/employment-based immigration.

Hours: 2.0-3.0 Credit, Arr Lecture, 0.0 Lab
Prerequisites: First-year law courses.

Immigration Law Practicum [LAW-794]

BYU > J. Reuben Clark Law School > J. Reuben Clark Law School > Course

Focus on developing an in-depth understanding and practical knowledge of the procedures, substantive requirements, and best practices relating to representing foreign-born citizens or the United States Department of Homeland Security in federal deportation hearings. The most common applications for relief in such proceedings including asylum, cancellation of removal for permanent residents, cancellation of removal for non-lawful permanent residents, and adjustment of status. Deportation custody/detention authority and release, as well as voluntary departure for those who are not eligible to remain in the United States under any of the above-described applications.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Completion of first-year curriculum.

Information Privacy Law [LAW-718]

BYU > J. Reuben Clark Law School > J. Reuben Clark Law School > Course

In-depth analysis of the different types of law (constitutional, tort, contract, property, and statutory) that address threats to privacy in the information society.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Completion of the first-year curriculum.

Inspiring Leadership [LAW-761]

BYU > J. Reuben Clark Law School > J. Reuben Clark Law School > Course

Students will engage leadership theories, identify and cultivate their own approach to leadership, and take the first steps in developing a leadership plan relating to organizational or social change. Developing a leadership plan to prepare to use legal education to lead change.

Hours: 2.0 Credit, 2.0 Lecture, 0.0 Lab

Intellectual Property Litigation [LAW-714]

BYU > J. Reuben Clark Law School > J. Reuben Clark Law School > Course

Considerations for the filing of a patent, trademark, and/or copyright complaint, preparation of discovery requests in patent cases, preliminary injunction briefing and argument involving patent and/or trademark issues, patent claim construction briefing and argument, depositions of plaintiff's and defendant's experts, and summary judgment briefing and argument involving patent issues.

Hours: 2.0-3.0 Credit, Arr Lecture, 0.0 Lab
Prerequisites: Required first-year courses.

International Business Transactions [LAW-639]

BYU > J. Reuben Clark Law School > J. Reuben Clark Law School > Course

Making, regulating, and breaking international business transactions. (1) Formation of international business transactions, focusing on contracting for and financing the international sale of goods, licensing and distributorship agreements, and foreign direct investment. (2) Regulation stage of international business transactions, including the transactional reach of U.S. government regulation, regulation of corrupt payments to foreign officials, international protection of intellectual property, and securities and antitrust aspects of international transactions. (3) Breaking international business transactions; transnational dispute resolution through arbitration and through transnational litigation in U.S. courts.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: First-year law courses.

International Environmental Law [LAW-719]

BYU > J. Reuben Clark Law School > J. Reuben Clark Law School > Course

Developing international regimes and norms relating to protection of global environment, including climate change, preservation of wildlife, and biodiversity; freshwater resources and Law of the Sea.

Hours: 2.0-3.0 Credit, Arr Lecture, 0.0 Lab
Prerequisites: First-year law courses.

International Human Rights [LAW-723]

BYU > J. Reuben Clark Law School > J. Reuben Clark Law School > Course

Introduction to international law of human rights -- historical evolution of human rights, treatment within U.N. system, significance of European law, challenges in human rights abuse.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: First-year law courses.

International Protection of Religious Freedom [LAW-700]

BYU > J. Reuben Clark Law School > J. Reuben Clark Law School > Course

U.S. and international religious liberty issues - principles, methodologies, international human rights. Analyzing religious liberties in countries around the world.

Hours: 2.0 Credit, 2.0 Lecture, 0.0 Lab
Prerequisites: First-year law courses.

International Taxation [LAW-643]

BYU > J. Reuben Clark Law School > J. Reuben Clark Law School > Course

Rules governing U.S. taxation of income earned within the U.S. by foreigners and income earned abroad by U.S. residents. Critique of these rules in light of economic and international law norms.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: First-year law courses.

Internet Law Transactional Skills Course [LAW-735]

BYU > J. Reuben Clark Law School > J. Reuben Clark Law School > Course

For students interested in a general or a transactional legal practice experience with legal issues common in e-commerce. Specific topics are subject to ongoing developments in the area, but will likely include most of the following: terms of use and user agreements, privacy policies and data use topics, legal issues related to monetization of online services, co-branding and online joint ventures, online marketing, data protection and breaches, and the Communications Decency Act. Elements used in grading will consist of class participation and drafting assignments.

Hours: 2.0-3.0 Credit, 3.0 Lecture, 0.0 Lab

Introduction to Advocacy [LAW-546]

BYU > J. Reuben Clark Law School > J. Reuben Clark Law School > Course

Focuses on appellate legal writing and oral advocacy. Student will prepare an appellate brief and orally argue the case. Also includes training for online legal databases and introduction to administrative law and legislative history research.

Hours: 2.0 Credit, 2.0 Lecture, 0.0 Lab
Prerequisites: Admission to law school.

Introduction to American Law [LAW-685]

BYU > J. Reuben Clark Law School > J. Reuben Clark Law School > Course

A survey of basic concepts and institutions in the American legal system. The survey is designed for persons who have received their law degree or its equivalent from a university outside the United States.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Must be an LLM candidate.

Introduction to Intellectual Property [LAW-731]

BYU > J. Reuben Clark Law School > J. Reuben Clark Law School > Course

Overview course covering the basics of intellectual property (IP) law—trade secrets, patents, copyrights, and trademarks, as well as selected other state intellectual property rights. No science background necessary.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: First-year law courses.

Introduction to Legal Research and Writing [LAW-545]

BYU > J. Reuben Clark Law School > J. Reuben Clark Law School > Course

Introduction to tools and techniques essential to law practice and legal scholarship: legal analysis, research using print sources, and objective writing. Student will write three predictive office memoranda based on library research and complete a series of legal research quizzes and a legal research final exam.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Admission to law school.

Joseph Smith and Early American Law [LAW-717]

BYU > J. Reuben Clark Law School > J. Reuben Clark Law School > Course

Joseph Smith's ideas and experiences involving the law from 1805-1844. Projects related to the Joseph Smith Legal Papers. Topics: religious liberty, civil rights, disturbing the peace, copyright, civic virtue, marriage, militias, treason, conspiracy, prisons, petitions, city charters, incorporation, property, debt, bankruptcy, freedom of the press, extradition, writs of habeas corpus, elections, abolition, slander, murder, and revelations and teachings of the prophet on civil and divine law.

Hours: 2.0-3.0 Credit, Arr Lecture, Arr Lab
Prerequisites: First-year law courses.

Jurisprudence [LAW-646]

BYU > J. Reuben Clark Law School > J. Reuben Clark Law School > Course

This course will study the classical sources and conceptions of law, including natural law, natural rights, positivism, realism, and the "legal process" school.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: First-year law courses.

Labor Law [LAW-655]

BYU > J. Reuben Clark Law School > J. Reuben Clark Law School > Course

Examines how collective bargaining relationships are established and how collective bargaining agreements are negotiated and administered in the private sector. Also explores use of economic tactics, e.g., strikes, boycotts and picketing.

Hours: 2.0 Credit, 2.0 Lecture, 0.0 Lab
Prerequisites: First-year law courses.

Land Use Planning [LAW-658]

BYU > J. Reuben Clark Law School > J. Reuben Clark Law School > Course

An examination of governmental control over private land use and development. Subjects include zoning, subdivision and growth controls, and various constitutional issues raised by land use restraints.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: First-year law courses.

Law and Economics [LAW-648]

BYU > J. Reuben Clark Law School > J. Reuben Clark Law School > Course

Introduction to economic analysis of the legal system. Students need not have any prior training in economics.

Hours: 2.0-3.0 Credit, VAR Lecture, 0.0 Lab

Law and Finance [LAW-657]

BYU > J. Reuben Clark Law School > J. Reuben Clark Law School > Course

The role of lawyers (corporate, tax, securities, etc.), direct private equity and hedge fund investors, corporate business development officers, entrepreneurs and business owners, and investment bankers, in creating value through deal making.

Hours: 2.0-3.0 Credit, 2.0 Lecture, 0.0 Lab

Law and Public Education [LAW-634]

BYU > J. Reuben Clark Law School > J. Reuben Clark Law School > Course

An examination of the constitutional issues affecting public education in the United States: free speech, religion in the schools, student conduct, teachers' rights, teacher discipline, special education, home schooling, etc.

Hours: 2.0 Credit, 2.0 Lecture, 0.0 Lab
Prerequisites: First-year law courses.

Law of Armed Conflict [LAW-738]

BYU > J. Reuben Clark Law School > J. Reuben Clark Law School > Course

Detailed examination of the Law of Armed Conflict (LOAC) and its application on the modern battlefield. Loosely based on a historical scenario which will help illustrate the principles, doctrines, and law that govern the use of force by a nation. Covers general principles applicable to armed conflict, followed by detailed study of specific law of armed conflict legal principles and provisions.

Hours: 2.0-3.0 Credit, Arr Lecture, 0.0 Lab
Prerequisites: Law 659.

Law of Higher Education [LAW-737]

BYU > J. Reuben Clark Law School > J. Reuben Clark Law School > Course

A comprehensive review of the legal principles and practices involved in the administration of institutions of higher education in the United States.

Hours: 2.0 Credit, 2.0 Lecture, 0.0 Lab
Prerequisites: First-year law courses.

Law Office Management [LAW-674]

BYU > J. Reuben Clark Law School > J. Reuben Clark Law School > Course

This course is designed to introduce law students to issues that arise in the private practice of law. The underlying thesis is that a law office is a business, and that success in private practice is as much a function of effective management as it is a function of mastering substantive legal knowledge. The course looks at the organization of the law firm; the partnership, the profess

Hours: 2.0 Credit, 2.0 Lecture, 0.0 Lab
Prerequisites: First-year law courses.

Law School Clinic [LAW-788R]

BYU > J. Reuben Clark Law School > J. Reuben Clark Law School > Course

Live-client interactions under the supervision of seasoned practitioners. Emphasis on the development of professional skills, including legal research and writing, counseling, interviewing, negotiation, mediation, and problem solving.

Hours: 1.0-4.0 Credit, Arr Lecture, Arr Lab
Prerequisites: First-year law courses. Additional requirements may apply independently for each Law School Clinic.

Law School Seminar [LAW-795R]

BYU > J. Reuben Clark Law School > J. Reuben Clark Law School > Course

Hours: 1.0-18.0 Credit, 0.0 Lecture, 0.0 Lab
Prerequisites: First-year law courses.

Law School Seminar [LAW-796R]

BYU > J. Reuben Clark Law School > J. Reuben Clark Law School > Course

Hours: 1.0-18.0 Credit, 0.0 Lecture, 0.0 Lab
Prerequisites: First-year law courses.

Legal Analysis Skills [LAW-701]

BYU > J. Reuben Clark Law School > J. Reuben Clark Law School > Course

Continuation of skills learned in the first year, with emphasis on analysis and synthesis applied to realistic fact settings. Honing of these skills will give students the increased ability to perform in multiple settings: law school exams, the bar examination, and client matters. Registration in this course will be determined by the instructor and Associate Dean for Students and Academic Affairs. Students will have the opportunity to practice the skills and receive feedback in a pass-fail, small-section setting.

Hours: 2.0 Credit, 2.0 Lecture, 0.0 Lab
Prerequisites: Substantial completion of first-year curriculum.

Legal Drafting [LAW-739]

BYU > J. Reuben Clark Law School > J. Reuben Clark Law School > Course

Learn: (1) how legal drafting differs from other writing; (2) how to easily organize your documents; (3) how to address your audience convincingly; (4) how to use a simple technique to assure accurate interpretation of your documents in the future; (5) how to simply frame complex legal issues; and (6) how to write precisely. Learn the fundamental rules of drafting and analyze violations of those basic rules.

Hours: 2.0 Credit, 2.0 Lecture, 0.0 Lab
Prerequisites: First-year law courses.

Legal Interviewing and Counseling [LAW-653]

BYU > J. Reuben Clark Law School > J. Reuben Clark Law School > Course

An intensive skill development course that uses simulation methods to develop proficiency in the use of legal interviewing and counseling methods and techniques.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: First-year law courses.

Legal Research and Writing [LAW-720]

BYU > J. Reuben Clark Law School > J. Reuben Clark Law School > Course

Basic research in American legal tradition and personalized training in writing legal documents in English for non-U.S. attorneys in the LLM program.

Hours: 2.0 Credit, 2.0 Lecture, 0.0 Lab
Prerequisites: Must be an LLM candidate.

Legal Scholarship [LAW-741]

BYU > J. Reuben Clark Law School > J. Reuben Clark Law School > Course

Helps students begin to prepare for a career in legal academics. Students will work to identify areas of scholarly and teaching interest, develop a research agenda, prepare a scholarly article, present a job talk, and understand the academic hiring process.

Hours: 2.0-3.0 Credit, Arr Lecture, 0.0 Lab
Prerequisites: First-year law courses.

Legislation [LAW-652]

BYU > J. Reuben Clark Law School > J. Reuben Clark Law School > Course

This course considers the method by which public policy comes to be enforced by statutes in our legal system. It focuses primarily on issues raised by different theories of statutory interpretation, but also addresses various political theories of legislation and the impact of administrative agency enforcement of statues.

Hours: 2.0 Credit, 2.0 Lecture, 0.0 Lab
Prerequisites: First-year law courses.

Legislation and Regulation [LAW-535]

BYU > J. Reuben Clark Law School > J. Reuben Clark Law School > Course

Introduction to lawmaking in the modern statutory and administrative state. Examining the way Congress and administrative agencies adopt binding rules of law (statues and regulations, respectively) and the way the implementing institutions - courts and administrative agencies - interpret and apply these laws. Considering the theories and justifications behind modern legislative and regulatory behavior, the incentives that influence the behavior of various actors, and the legal rules that help structure the relationships among Congress, the agencies, and the courts.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Admission to law school.

LLM Thesis [LAW-798R]

BYU > J. Reuben Clark Law School > J. Reuben Clark Law School > Course

Hours: 1.0-6.0 Credit, 0.0 Lecture, 0.0 Lab
Prerequisites: Completion of fall semester LLM program.

Media Law [LAW-733]

BYU > J. Reuben Clark Law School > J. Reuben Clark Law School > Course

The intersection of media and the law and impact upon the press. Prior restraint, reporter's privilege, access to court proceedings, libel, appropriation, and rights of privacy.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Mediation Practicum [LAW-742]

BYU > J. Reuben Clark Law School > J. Reuben Clark Law School > Course

Students build on the basic skills they learned in Basic Mediation both in weekly meetings and in participating in actual mediations in small claims court and other venues.

Hours: 1.0-2.0 Credit, Arr Lecture, Arr Lab
Prerequisites: First-year law courses.

Mergers and Acquisitions [LAW-736]

BYU > J. Reuben Clark Law School > J. Reuben Clark Law School > Course

This course will review a wide range of issues related to buying and selling companies, including transaction alternatives, tax roadblocks, the essential elements of the acquisition agreement and risk allocation strategies of the buyer and the seller. The course will address the differences between stock and asset acquisitions, and issues related to valuing a business, successor liability, a

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: First-year law courses.

Mergers and Acquisitions Simulation Course [LAW-755]

BYU > J. Reuben Clark Law School > J. Reuben Clark Law School > Course

A simulation skills course in which students role-play the lawyer in an M&A transaction.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Mining Law [LAW-631]

BYU > J. Reuben Clark Law School > J. Reuben Clark Law School > Course

Study of mineral interests, land status determinations, acquisition of mineral rights, mining entry and location of claims, mineral leasing, and mining agreements.

Hours: 2.0-3.0 Credit, Arr Lecture, Arr Lab
Prerequisites: First-year law courses.

National Security Law [LAW-620]

BYU > J. Reuben Clark Law School > J. Reuben Clark Law School > Course

This course surveys the framework of domestic and international laws that variously authorize and restrain the pursuit of the U.S. government's national security policies. "National security" can mean a great many things, of course, but for purposes of this course we will be concerned primarily with the interactions of the government and the allocation of power between the branches of the government in relation to (i) the use of military force, (ii) the activities of the intelligence community, and (iii) counter terrorism-related activities (including the interrogation, detention, and trial of captured persons).

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: First-year law courses; Law 659 and/or Law 751.

Negotiation [LAW-668]

BYU > J. Reuben Clark Law School > J. Reuben Clark Law School > Course

Negotiation is essential for all lawyers. This course helps students understand negotiation strategies and ethics, improves communication skills, and provides practice for effective implementation of negotiation techniques. Will benefit students interested in any practice area.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: First-year law courses.

Oil and Gas [LAW-671]

BYU > J. Reuben Clark Law School > J. Reuben Clark Law School > Course

The nature of interests in oil and gas, the oil and gas lease and associated problems, title and conveyancing problems with respect to transfers of oil and gas interests, and pooling and unitization. In some semesters, this course may be taught exclusively online.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: First-year law courses.

Origins of the Constitution [LAW-665]

BYU > J. Reuben Clark Law School > J. Reuben Clark Law School > Course

Examination of intellectual origins of the U.S. Constitution; review of drafting and adoption of Constitution and Bill of Rights. Students read all of Madison's Notes of the Debates at the Federal Convention, some of the Federalist and Anti-Federalist Papers, and a few contemporary reflections upon the Constitution's origins.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: First-year law courses.

Partnership Tax [LAW-636]

BYU > J. Reuben Clark Law School > J. Reuben Clark Law School > Course

Examines the federal income tax consequences arising from the operation of an enterprise that is treated as a partnership for tax purposes. Topics include the allocation of partnership income and deductions among partners as well as the various problems created by contributions, distributions, and acquisitions and dispositions of partnership interests.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Patent Drafting and Prosecution [LAW-759]

BYU > J. Reuben Clark Law School > J. Reuben Clark Law School > Course

Providing a practical, hands-on overview of the typical role an attorney plays in the representation of a client before the U.S. Patent and Trademark Office (USPTO) in securing a United States patent. Involving a series of case study exercises designed to follow a series of events encountered when seeking patent protection, including advising a client as to the patentability of an invention; drafting various components of a patent application such as the specification and claims; and preparing and advocating responses to Office Actions issued by the USPTO.

Hours: 2.0-3.0 Credit, 3.0 Lecture, 0.0 Lab

Patent Law [LAW-745]

BYU > J. Reuben Clark Law School > J. Reuben Clark Law School > Course

Focuses on the U.S. patent system and is designed for those with a significant interest in patent law and patent practice.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: First-year law courses.

Politics of Environmental Law [LAW-709]

BYU > J. Reuben Clark Law School > J. Reuben Clark Law School > Course

Contemporary environmental problems and the politics surrounding environmental law. Incorporates discussions of U.S. environmental law. Focus will primarily be international and comparative.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Presidential Power [LAW-746]

BYU > J. Reuben Clark Law School > J. Reuben Clark Law School > Course

Examines the constitutional law that creates, defines, and limits the power of the American presidency. Emphasis given to the debates that preceded the drafting of Article II and accompanied the ratification of the Constitution, and the history of the exercise of presidential power. Special emphasis given to the administrations of Lincoln, the two Roosevelts, and the presidents since the emergence of the United States as the pre-eminent nation in the global community after World War II.

Hours: 2.0 Credit, 2.0 Lecture, 0.0 Lab
Prerequisites: First-year law courses.

Principles of Trial Advocacy [LAW-722]

BYU > J. Reuben Clark Law School > J. Reuben Clark Law School > Course

Basic principles of litigation skills and trial advocacy, including opening statements, direct examination, admissibility of proof, objections, and closing statements.

Hours: 2.0 Credit, 2.0 Lecture, 0.0 Lab
Prerequisites: First-year law courses.

Professional Development Lecture Series 1 [LAW-550]

BYU > J. Reuben Clark Law School > J. Reuben Clark Law School > Course

This course is specifically designed to assist law students in determining which career path they want to pursue. Each session features a different practicing attorney who will discuss the nuts and bolts of practicing law in areas such as real estate, law office management, part-time employment options, tax, bankruptcy, international corporate law, alternative dispute resolution, family law,

Hours: 0.5 Credit, 1.0 Lecture, 0.0 Lab
Prerequisites: Admission to law school.

Professional Development Lecture Series 2 [LAW-551]

BYU > J. Reuben Clark Law School > J. Reuben Clark Law School > Course

This course is specifically designed to assist law students in determining which career path they want to pursue. Each session features a different practicing attorney who will discuss the nuts and bolts of practicing law in areas such as real estate, law office management, part-time employment options, tax, bankruptcy, international corporate law, alternative dispute resolution, family law,

Hours: 0.5 Credit, 1.0 Lecture, 0.0 Lab
Prerequisites: Admission to law school.

Professional Development Skills Training [LAW-552]

BYU > J. Reuben Clark Law School > J. Reuben Clark Law School > Course

Looking for legal employment can be frustrating if you lack the tools for a successful job search. This course will help students to create resumés, business correspondence, and marketing plans; to understand ways to effectively interview and build a professional network; and to strategically incorporate technology and published resources in the job search.

Hours: 0.5 Credit, 1.0 Lecture, 0.0 Lab
Prerequisites: Admission to law school.

Professional Responsibility [LAW-660]

BYU > J. Reuben Clark Law School > J. Reuben Clark Law School > Course

This course uses the Model Rules of Professional Conduct as a backdrop for an examination of issues in ethical lawyering.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: First-year law courses.

Professional Seminar [LAW-549]

BYU > J. Reuben Clark Law School > J. Reuben Clark Law School > Course

Integrating religious and moral values into a model of legal professionalism; issues regarding legal education, the legal system, the practice of law, and the roles of lawyers.

Hours: 0.5 Credit, 1.0 Lecture, 0.0 Lab
Prerequisites: Admission to law school.

Property [LAW-520]

BYU > J. Reuben Clark Law School > J. Reuben Clark Law School > Course

Inquiry into the nature of "property" and "ownership" of land and structures on land and the ways in which ownership may be established, restricted, transferred, and divided among various persons.

Hours: 4.0 Credit, 4.0 Lecture, 0.0 Lab
Prerequisites: Admission to law school.

Public International Law [LAW-659]

BYU > J. Reuben Clark Law School > J. Reuben Clark Law School > Course

An examination of the nature of public international law including custom and treaties as sources of law, international responsibilities and remedies, and jurisdictional issues.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: First-year law courses.

Public Lands and Natural Resources [LAW-656]

BYU > J. Reuben Clark Law School > J. Reuben Clark Law School > Course

This course surveys the field of natural resources law, primarily in the context of the federal public lands. Topics covered include public land law, water, wildlife and biodiversity, grazing and range management, recreation and preservation.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: First-year law courses.

Public Speaking for Lawyers [LAW-740]

BYU > J. Reuben Clark Law School > J. Reuben Clark Law School > Course

Communication and interdisciplinary theories and strategies needed for effective persuasive public speaking: speech study, audience analysis, outlining, documentation, organizational skills, word choice, and presentation.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Public Speaking for Lawyers [LAW-747]

BYU > J. Reuben Clark Law School > J. Reuben Clark Law School > Course

Examines public speech from both theoretical and practical perspectives, and enables students to develop a skill-set heavily relied upon by attorneys from all practice backgrounds. Examines communication and interdisciplinary theories and mechanics/strategies needed for effective persuasive public speaking like speech study, audience analysis, outlining, documentation, organizational skills, word choice, and presentation. Every speech will focus on topics that are legally relevant.

Hours: 2.0 Credit, 2.0 Lecture, 0.0 Lab
Prerequisites: First-year law courses.

Real Estate Development [LAW-703]

BYU > J. Reuben Clark Law School > J. Reuben Clark Law School > Course

Risks in real estate development and steps to take a real estate project to completion. Market conditions for the proposed use and site, planning/zoning issues and resolutions, financing, site-related legal issues.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: First-year law courses.

Real Estate Finance [LAW-650]

BYU > J. Reuben Clark Law School > J. Reuben Clark Law School > Course

Review of real estate transactions. Real estate finance including mortgages, trust deeds, installment sales contracts, other mortgage substitutes, receiverships, transfer of real estate security interests, discharge, deeds in lieu of foreclosure, foreclosure, foreclosure sales, redemption, deficiency payments, priorities, mechanics liens, judgment liens, purchase money mortgages, and ground

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: First-year law courses.

Remedies [LAW-628]

BYU > J. Reuben Clark Law School > J. Reuben Clark Law School > Course

A study of the general principles and basic rules governing the rich inventory of remedies available through American courts. The principles associated with the law of remedies cut across substantive fields and guides the lawyer in fashioning or defending against various remedial schemes in any substantive contest. The course emphasizes issues and developments of contemporary importance and

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: First-year law courses.

Secured Transactions [LAW-615]

BYU > J. Reuben Clark Law School > J. Reuben Clark Law School > Course

All aspects of security in personal property (personal property includes everything except land). Problems and legal principles relevant to the creation of the security interest, to its perfection, to priorities between competing security interests and between a security interest and other kinds of property interest, to payment and redemption, and to realization procedures. Article 9 of the Uniform Commercial Code.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: First-year law courses.

Securities Regulation [LAW-662]

BYU > J. Reuben Clark Law School > J. Reuben Clark Law School > Course

Securities Act of 1933, Securities Exchange Act of 1934, state blue sky laws and regulations, distribution and trading of securities, express and implied civil liabilities, criminal liability, insider trading, tender offers, broker-dealer regulation, and the role of lawyers.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: First-year law courses.

Securities Regulation Simulation [LAW-760]

BYU > J. Reuben Clark Law School > J. Reuben Clark Law School > Course

Introduction of skills necessary to succeed as a transactional securities lawyer. Complements the doctrinal LAW 662: Securities Regulation course. Simulated transactions will provide a context in which students will learn the practical skills associated with the type of transaction involved, including drafting, problem solving, and disclosure document review and analysis.

Hours: 2.0-3.0 Credit, 2-3 Lecture, 0.0 Lab
Prerequisites: Completion of first-year curriculum.

Sentencing [LAW-748]

BYU > J. Reuben Clark Law School > J. Reuben Clark Law School > Course

Examines law and policy with respect to sentencing of adult offenders in the United States. Looks at theories, structures and practices involved in sentencing and sentence decision-making. Interactive, discussion-oriented course including presentations from expert practitioners such as judges, prosecutors, defense counsel, and community leaders and advocates.

Hours: 2.0 Credit, 2.0 Lecture, 0.0 Lab
Prerequisites: First-year law courses.

Skills Lab [LAW-698R]

BYU > J. Reuben Clark Law School > J. Reuben Clark Law School > Course

Students practice lawyering skills, either through simulations or in the field. An appendage to a doctrinal course; students in the lab must be enrolled concurrently in the related doctrinal course.

Hours: 1.0-3.0 Credit, Arr Lecture, Arr Lab
Prerequisites: First-year law courses.

Social Policy and Feminist Legal Thought [LAW-678]

BYU > J. Reuben Clark Law School > J. Reuben Clark Law School > Course

Feminist jurisprudence. Various doctrinal strains in development of feminist legal theory and method; applying them to facially neutral legal issues. Rape, domestic violence, employment discrimination, historical and sociological gender treatment, and practical changes in legal profession accompanying influx of greater numbers of women lawyers.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: First-year law courses.

Solo and Small Firm Practice [LAW-729]

BYU > J. Reuben Clark Law School > J. Reuben Clark Law School > Course

Skills required to build a solo or small firm law practice. Topics include locating and equipping the law office, building a client base, managing time, fee management, specializing, managing administrative staff, ethical standards, and creating relationships with other participants in the legal system.

Hours: 2.0 Credit, 2.0 Lecture, 0.0 Lab
Prerequisites: First-year law courses.

Special Topics in Law [LAW-686R]

BYU > J. Reuben Clark Law School > J. Reuben Clark Law School > Course

Hours: 1.0-2.0 Credit, Arr Lecture, 0.0 Lab
Prerequisites: First-year law courses.

Special Topics in Law [LAW-687R]

BYU > J. Reuben Clark Law School > J. Reuben Clark Law School > Course

Hours: 1.0-4.0 Credit, 0.0 Lecture, 0.0 Lab
Prerequisites: First-year law courses.

Sports Law [LAW-618]

BYU > J. Reuben Clark Law School > J. Reuben Clark Law School > Course

Examining the different duties of an attorney in the role of "sports agent," including: player/agent recruiting and representation, player/club contract negotiation, marketing and licensing contracts, and career and injury management, supplemented by a review of current topics relevant to attorneys representing professional athletes, university athletic departments, professional teams and leagues, and sports-related industries.

Hours: 2.0-3.0 Credit, 3.0 Lecture, 0.0 Lab

State and Local Government 1 [LAW-663]

BYU > J. Reuben Clark Law School > J. Reuben Clark Law School > Course

Interrelationship among national, state, and local governments and the powers of each, as well as examination of separation-of-powers principles and impact of political process at state and local level.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: First-year law courses.

Structures of the Constitution [LAW-530]

BYU > J. Reuben Clark Law School > J. Reuben Clark Law School > Course

The Constitution`s distribution of sovereign power between the federal government and the states; its allocation of federal sovereign power among Congress, the president, and the judiciary.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Admission to law school.

Supreme Court [LAW-713]

BYU > J. Reuben Clark Law School > J. Reuben Clark Law School > Course

Examining the U.S. Supreme Court emphasizing participation in hands-on exercises. Student will draft one opinion on a case on which he or she sits.

Hours: 2.0 Credit, 2.0 Lecture, 0.0 Lab
Prerequisites: First-year law courses.

Tax-Exempt Organizations [LAW-777]

BYU > J. Reuben Clark Law School > J. Reuben Clark Law School > Course

Study of the principles governing tax-privileged entities, including churches, schools, hospitals, business leagues, private foundations, country clubs, home owners associations, and political action committees.

Hours: 2.0-3.0 Credit, Arr Lecture, 0.0 Lab
Prerequisites: Completion of first-year curriculum.

Technology Licensing [LAW-749]

BYU > J. Reuben Clark Law School > J. Reuben Clark Law School > Course

An overview of the substantive issues and negotiation positions involved in licensing intellectual property rights through technology transfer, OEM, distribution, end user, joint venture, and related agreements. The class will emphasize developing client counseling skills and understanding both the legal arguments and the business context surrounding the most commonly negotiated provisions in licensing and IP agreements.

Hours: 2.0-3.0 Credit, Arr Lecture, 0.0 Lab
Prerequisites: First-year law courses.

The Entertainment Business [LAW-744]

BYU > J. Reuben Clark Law School > J. Reuben Clark Law School > Course

Legal aspects of the development, production and distribution from the perspective of the general counsel of a production company involved in the creation and distribution of television programming and film, music, or other forms of entertainment.

Hours: 2.0 Credit, 2.0 Lecture, 0.0 Lab

The First Amendment [LAW-626]

BYU > J. Reuben Clark Law School > J. Reuben Clark Law School > Course

Rights guaranteed by the speech, press, and religion clauses of the First Amendment.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: First-year law courses.

The Fourteenth Amendment [LAW-621]

BYU > J. Reuben Clark Law School > J. Reuben Clark Law School > Course

Express and implied individual rights guaranteed by the privileges or immunities, equal protection, and due process clauses of the Fourteenth Amendment.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: First-year law courses.

Theory and Practice of Legal Interpretation [LAW-756]

BYU > J. Reuben Clark Law School > J. Reuben Clark Law School > Course

Critical examination of the theory and practice of interpretation in various areas of law, such as constitutional law, legislation, contracts, and intellectual property law.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Completion of first-year curriculum.

Torts [LAW-505]

BYU > J. Reuben Clark Law School > J. Reuben Clark Law School > Course

Study of the judicial process in civil actions for damages or equitable relief for physical, appropriational, and defamatory harms to personality, property, and relational interests, with some consideration of alternative reparation systems such as workers' compensation.

Hours: 4.0 Credit, 4.0 Lecture, 0.0 Lab
Prerequisites: Admission to law school.

Trademark Law [LAW-727]

BYU > J. Reuben Clark Law School > J. Reuben Clark Law School > Course

Introduction to Lanham Act and related common law doctrines designed to protect against consumer confusion and appropriation of commercial goodwill. In addition to the technical requirements for trademark eligibility, registration, and infringement, the constitutional and economic underpinnings of trademark protection will be considered and current trends toward the ? propertization? of trademark law will be evaluated. Will also include material on the trademark treatment of Internet domain names, metatags, and links.

Hours: 2.0-3.0 Credit, Arr Lecture, 0.0 Lab
Prerequisites: First-year law courses.

Transactional Lawyering [LAW-750]

BYU > J. Reuben Clark Law School > J. Reuben Clark Law School > Course

Emphasizes practical skills over substantive knowledge, teaches the elements of contracts and how these elements work together. Learn how to translate what your client wants to accomplish into a clear and effective contract, and how to revise contracts with an eye to advocacy rather than stylistic preference. Work with various forms of existing agreements to craft contracts tailored to your client's needs. Prepare contracts and documents used by early stage companies.

Hours: 2.0-3.0 Credit, Arr Lecture, 0.0 Lab
Prerequisites: First-year law courses.

Transactional Legal Drafting [LAW-752]

BYU > J. Reuben Clark Law School > J. Reuben Clark Law School > Course

Introduction to skills needed to be an effective transactional lawyer. Learning to draft clear, effective, plain language contracts and to analyze transactional documents. Introduction to a variety of subject matters, including real estate, intellectual property, employment, general corporate, and mergers and acquisitions.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Trusts [LAW-683]

BYU > J. Reuben Clark Law School > J. Reuben Clark Law School > Course

This course examines the legal framework of private and charitable trusts as vehicles for the donative disposition and management of personal wealth, both inter vivos and testamentary with emphasis on the nature of the fiduciary obligations of trustees and the rights and obligations of trust grantors and beneficiaries.

Hours: 2.0 Credit, 2.0 Lecture, 0.0 Lab
Prerequisites: First-year law courses.

U.S. Constitutional History [LAW-712]

BYU > J. Reuben Clark Law School > J. Reuben Clark Law School > Course

American constitutional history from the founding to the present, with special emphasis on four periods of especially significant constitutional development: the Founding, Reconstruction, the New Deal, and the Civil Rights movement. Not exclusively a history of the Supreme Court, but a study of the regime created by the Constitution in all its branches and in all its facets.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

U.S. Foreign Relations Law [LAW-751]

BYU > J. Reuben Clark Law School > J. Reuben Clark Law School > Course

Examines constitutional, statutory, and common law doctrines that govern the United States' conduct of foreign relations. Focuses on the allocation of foreign relations authority, both among the branches of the federal government and between the federal and state governments. Specific topics include the scope of the treaty power, the constitutionality of executive agreements, the judiciary's role in deciding foreign relations questions, and the domestic legal status of international law.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: First-year law courses.

Water Law [LAW-684]

BYU > J. Reuben Clark Law School > J. Reuben Clark Law School > Course

The course considers (1) state water law with a focus on the western United States, (2) public vs. private rights in water; and (3) allocation of water between the federal government, states, and Indian tribes.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: First-year law courses.

White Collar Crime [LAW-753]

BYU > J. Reuben Clark Law School > J. Reuben Clark Law School > Course

Explores what white collar crime is, what separates it from traditional street crime, and surveys many of the classic types of white collar crime. Covers various types of fraud and white collar offenses including ponzi schemes, money laundering, cyber crimes, healthcare fraud, securities fraud, and public corruption. Reviews the major state and federal statutes which are used to prosecute these crimes as well as reviewing key principles in the investigation of white collar crime such as investigative guidelines. Examines how to accurately assess and determine mens rea in a white collar case.

Hours: 2.0-3.0 Credit, Arr Lecture, 0.0 Lab
Prerequisites: First-year law courses.

Wills and Estates [LAW-666]

BYU > J. Reuben Clark Law School > J. Reuben Clark Law School > Course

Transfer of property through intestate succession; wills and will substitutes; effect of community property ownership; legal and ethical issues surrounding end-of-life decisions, including living wills, medical directives, and medical powers of attorney; administration of decedents' estates.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: First-year law courses.

Youth in Mediation [LAW-754]

BYU > J. Reuben Clark Law School > J. Reuben Clark Law School > Course

Work with the juvenile justice system and learn the aspects of restorative justice. Discuss the impact youth crime has on victims, offenders, families and communities. This skills-based class teaches both basic and advanced techniques for mediation, specially focusing on parent/teen and victim/offender mediation. Completion of the course will give you 28 training hours toward court qualification for mediation in the State of Utah. There is a highly recommended and OPTIONAL 1-credit, 50-hour externship. See Law 599R, Youth in Mediation Externship.

Hours: 2.0 Credit, 2.0 Lecture, 0.0 Lab
Prerequisites: First-year law courses.

Augustine-Adams, Kif

Professor
J Reuben Clark Law School
JD, Harvard University, 1992
Research Interest: Public International Law; Race and Race Relations; Social Policy and Feminist Legal Thought; Fourteenth Amendment; Torts

Daniels, Earl Brigham

Professor
J Reuben Clark Law School
JD, Stanford University, 2003; PhD, Duke University Sc. 2003
Research Interest: Legislation and Regulation; Property Law; Environmental Law; Water Law

Durham, Wayne Cole

Professor
J Reuben Clark Law School
JD, Harvard University, 1975

Fee, John Elven

Professor
J Reuben Clark Law School
JD, University of Chicago, 1995
Research Interest: Land-Use Planning; Property; State and Local Government; Structures of the Constitution

Fleming, J Clifton

Professor
J Reuben Clark Law School
JD, George Washington University, 1967

Gedicks, Frederick M

Professor
J Reuben Clark Law School
JD, University of South California, 1980
Research Interest: Federal Courts; Structures of the Constitution; Fourteenth Amendment; Freedom of Religion; Substantive Due Process

Gordon, James Douglas

Professor
J Reuben Clark Law School
JD, University of California, Berkeley, 1980

Hernandez, Carl

Associate Teaching Professor
J Reuben Clark Law School
JD, Brigham Young University, 1992

Jensen, Eric Talbot

Professor
J Reuben Clark Law School
JD, University of Notre Dame Law School, 1994
Research Interest: Criminal Law; Public International Law; Law of Armed Conflict

Kyle, Kristin Beth Gerdy

Professor
J Reuben Clark Law School
JD, Brigham Young University, 1995
Research Interest: Introduction to Advocacy; Introduction to Legal Research and Writing; Advanced Appellate Brief Writing; Public Speaking for Lawyers

Lee, Thomas R

Adjunct Faculty
J Reuben Clark Law School
JD, University of Chicago, 1991

Moore, David H

Professor
J Reuben Clark Law School
JD, Brigham Young University, 1996
Research Interest: Civil Procedure; International Human Rights; Legal Scholarship; Public International Law

Nielson, Aaron Lloyd

Associate Professor
J Reuben Clark Law School
JD, Harvard University, 2007
Research Interest: Civil Procedure; Administrative Law

Nunez, Debra Carolina

Associate Professor
J Reuben Clark Law School
JD, Brigham Young University, 2004
Research Interest: Immigration Law; Professional Responsibility; Torts

Rasband, James R

BYU > J. Reuben Clark Law School > J. Reuben Clark Law School > Faculty

Professor
J Reuben Clark Law School
JD, Harvard University, 1989
Research Interest: International Environmental Law; Public Lands and Natural Resources; Torts; Water Law

Scharffs, Brett Gilbert

BYU > J. Reuben Clark Law School > J. Reuben Clark Law School > Faculty

Professor
J Reuben Clark Law School
JD, Yale University, 1992
Research Interest: Business Organizations; Law and Religion in the United States; International Business Transactions; International Protection of Religious Freedoms; Law and Logic

Smith, Douglas Gordon

BYU > J. Reuben Clark Law School > J. Reuben Clark Law School > Faculty

Professor
J Reuben Clark Law School
JD, University of Chicago, 1990
Research Interest: Business Organizations; Contracts; Corporate Finance; Law and Entrepreneurship; Securities Regulation

Sun, Lisa Grow

BYU > J. Reuben Clark Law School > J. Reuben Clark Law School > Faculty

Professor
J Reuben Clark Law School
JD, Harvard University, 1997
Research Interest: Disaster Law; Structures of the Constitution; Torts

Welch, John Woodland

BYU > J. Reuben Clark Law School > J. Reuben Clark Law School > Faculty

Professor
J Reuben Clark Law School
JD, Duke University, 1975
Research Interest: Ancient Laws in the Hebrew Bible and Book of Mormon; Joseph Smith and the Law; Law in New Testament; Tax-Exempt Organizations

Worthen, Kevin

BYU > J. Reuben Clark Law School > J. Reuben Clark Law School > Faculty

Professor
J Reuben Clark Law School
JD, BYU, 1972
Research Interest: Professional Seminar

Linguistics

BYU > College of Humanities > Department

Address

Linguistics
4064 JFSB
801-422-2937
linguistics@byu.edu

Programs

Linguistics [554960]
Teaching English To Speakers of Other Languages [554965]

The Department of Linguistics offers two graduate degrees: Linguistics MA and TESOL MA. Both MA degrees require an oral defense of a thesis. These programs continue to have a significant influence at Brigham Young University with its rich language resources, and in a world setting where the demand for skilled language professionals is at an all-time premium, especially in the areas of teaching English as a second or foreign language. Students enrolling in these graduate programs receive state-of–the-art instruction in both the theoretical and applied aspects of linguistics.

Chair: Norman Evans
Graduate Coordinator: TESOL MA: Troy Cox
Graduate Coordinator: Linguistics MA: William Eggington

Financial Assistance

Financial assistance has been available over the past several years, particularly in the form of partial-tuition scholarships. One of the benefits that comes to both linguistics and TESOL students is the fact that many professors use teaching and research assistants. Also, many of those studying TESOL have the opportunity to become teaching assistants or part-time teachers at the English Language Center, where there are about twenty graduate student teachers.

Linguistics (MA) [554960]

The purpose of the linguistics MA program is closely related to the department's definition of linguistics, which is the scientific study of language. The program aims to prepare the student to become a language professional, go on to a PhD program, or go into the world as a competent practitioner of the skills expected of a linguist. A more applied, but popular emphasis in the department is a track that combines linguistics with computer skills. The linguistics curriculum develops such skills as analyzing language in its sound, structure, and meaning. Optional tracks also introduce the student to such related fields as anthropological linguistics, information design, sociolinguistics, and language-oriented computing.

Total credit hours: 33
- Required courses: (6 hours)
  - Topics in Linguistics (3 hours): Ling 600
  - Research core (3 hours): Ling 604
- Electives (21 hours): depending on course availability and consultation with faculty advisors. Students can choose to focus on one of the following areas of emphasis: 1. Linguistics computing, 2. Language acquisition, 3. Language and society, or 4. General linguistics
- Thesis (6 hours)
- Examination: oral defense of thesis
- (with Ling 401 as a prerequisite for non-Ling BA {or equivalent} students)

Required Tests

GRE

TOEFL for international students with an overall score of 580 (paper-based) or 90 (internet based test) with minimum subscores of 23 in speaking and 22 in other sections of the iBT.

Additional Requirements

Prerequisites:

1. Competency in two languages other than English (one at the 200 level and one at the 300 level)

Note: This requirement can be completed after starting the program along with regular course work, but it does not count towards the overall 33 credit program requirement.

2. If indicated by an Oral Proficiency Interview (OPI), nonnative English speakers will need to take ESL 301 Advanced Academic English, ESL 302 Advanced English Pronunciation, or ESL 305 Applied Grammar. The OPI should be completed before or during the first semester.

3. Non-native English speakers must take Ling 501 during winter semester. However, you will be instructed on how this requirement may be waived during your first fall semester.

Resume:

Applicants should submit a writing sample (peer-reviewed if possible) in English, no longer than 20 pages, that reflects their best single authored work preferably focused on some area of linguistics, language or communication.

Applicants with Foreign Credentials:

Applicants with degrees that have been awarded outside of the US must complete a foreign credential evaluation with IERF and request to have the official evaluation report sent electronically to BYU Graduate Studies (before the applicable program application deadline) in order to be considered eligible for admission. Please be aware that the IERF process can take up to a month to complete.

Teaching English To Speakers of Other Languages (MA) [554965]

Requirements for TESOL MA Degree

- **Credit hours (37): minimum 22 course work hours plus 6 thesis hours (Ling 699R), or 6 project hours (Ling 698R for 3 hours) and 3 internship hours (Ling 688R).**
- **Required courses: Ling 610, 611, 612, 620, 631, 640, 660, 695, 698R plus 688R, or 699R**
- **Elective: 9 elective hours with the possibility of selecting one of the following four specializations:**
  - **Teaching: Ling 655, 670 and 671**
  - **Curriculum & Materials Development: Ling 677, 678, 670 or 671**
  - **Program Administration: Ling 677, 679, 670, or 671**
  - **Curriculum & Assessment: Ling 677, plus faculty-directed elective, 670 or 671**
- **Thesis - Ling 699R (6 hours)**
- **Project - Ling 698R (3 hours), plus Ling 688R Academic Internship (3 hours)**
- **Oral defense of project/thesis.**

For a more detailed description of the graduate program requirements, see http://linguistics.byu.edu.

Required Tests

GRE

TOEFL (Total 90 on iBT -- 23 in speaking, 22 in listening, reading, and writing) or IELTS

Additional Requirements

1. **Ling 401 Introduction to Graduate Linguistics, or equivalent course. This must be completed during summer term, before starting the MA program in the fall. Students who believe they have satisfied the prerequisite with an equivalent course at another university should contact the department office at linguistics@byu.edu. We will need to know where and when you took the course, what grade you received, and a copy of the course syllabus so that we can determine its equivalency to Linguistics 401.**
2. **Competency in one language other than English at the 200 level. This requirement may be fulfilled while taking program coursework, but those language credits do NOT count toward the total credits needed for the program.**
   Note: This requirement can be completed along with regular coursework, but it does not count towards the overall 37 credit program requirement.

In addition to the requirements listed above, non-native English speakers must complete the following:

1. **LING 501 Advanced Composition must be taken Winter Semester by all non-native English speaking students, but you will be contacted during your first semester about how this requirement may be waived during your first fall semester.**
2. **Based on the results of the Oral Proficiency Interview (OPI) taken the first semester, non-native English speaking students may need to take ESL 301 Advanced Academic English, and/or ESL 302 Advanced English Pronunciation, and/or ESL 305 Applied Grammar.**

Resume

Academic Internship: Linguistics [LING-599R]

BYU > College of Humanities > Linguistics > Course

On-the-job experience under faculty supervision, with department approval.

Hours: 1.0-9.0 Credit, 9.0 Lecture, 0.0 Lab

Academic Internship: TESOL [LING-688R]

BYU > College of Humanities > Linguistics > Course

Supervised field experience involving English language teaching, testing, or materials development in an approved domestic or international setting.

Hours: 0.5-9.0 Credit, 0.0 Lecture, 0.0 Lab
Prerequisites: Admission to the TESOL graduate program.

Advanced Materials Development [LING-678]

BYU > College of Humanities > Linguistics > Course

Principles and procedures for designing, developing, and evaluating professional-quality language teaching/learning materials for various types: textbooks, software, audiovisual aids, etc.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Advanced Morphology [LING-652]

BYU > College of Humanities > Linguistics > Course

Morphological theory and applications including the lexicon, inflectional and derivational processes, compounding, valency, lexical conceptual and argument structure, morphophonology and morphosyntax, learnability, and modeling.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Advanced Phonology [LING-651]

BYU > College of Humanities > Linguistics > Course

Study of sound systems of natural languages using current methods and theories.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Advanced Research and Writing Techniques for Second Language Writers [LING-501]

BYU > College of Humanities > Linguistics > Course

Non-native English speaking students will develop research and writing techniques necessary for graduate-level writing.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: For graduate international ESL students.

Advanced Semantics [LING-654]

BYU > College of Humanities > Linguistics > Course

Semantic theory and applications including quantification, modality, aspect, presupposition, contexts, focus, polarity, and pragmatics.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Advanced Syntax [LING-653]

BYU > College of Humanities > Linguistics > Course

Theory of generative grammar, emphasizing its history, the competition between different versions of generative theory, and their recent extensions.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Analogical Modeling of Language [LING-615]

BYU > College of Humanities > Linguistics > Course

Nondeclarative approaches to language description; work within the connectionist or neural net framework; analogical or exemplar modeling.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Ling 330 or equivalent.

Anthropological Linguistics [LING-551]

BYU > College of Humanities > Linguistics > Course

Language in culture and society: development, typology, and description.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: For Fall 2013 & forward admits, Ling 220 and Ling 230; or equivalent.

Culture Teaching [LING-655]

BYU > College of Humanities > Linguistics > Course

Learning what culture is and how it functions in society. Practicing techniques and creating materials for teaching culture in ESL/EFL and foreign language classrooms.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Curriculum Development [LING-677]

BYU > College of Humanities > Linguistics > Course

Advanced language-teaching methodology and its classroom application.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Field Methods in Linguistics [LING-542]

BYU > College of Humanities > Linguistics > Course

Documenting an unfamiliar language by interacting with a native speaker.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Grammar Theory and Pedagogy [LING-631]

BYU > College of Humanities > Linguistics > Course

Examining English grammar and usage as they reflect different theories about language description and applying this knowledge in the ESL/EFL classroom.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Historical-Comparative Linguistics [LING-558]

BYU > College of Humanities > Linguistics > Course

Learning theory and method of language change via comparing daughter languages and reconstructing ancestral languages. Language universals and typology.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Ling 450 or equivalent.

History of the Book [ELANG-524]

BYU > College of Humanities > Linguistics > Course

History and development of the book, including modern methods and practices.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Language Acquisition [LING-640]

BYU > College of Humanities > Linguistics > Course

First- and second-language acquisition viewed in light of psycholinguistics and sociolinguistics.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Language and Literature [ELANG-535]

BYU > College of Humanities > Linguistics > Course

Literature from a language perspective; applying linguistic constructs to literary language; examining literary style; linguistic analysis of unfamiliar texts.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: or equivalent.

Language Policy and Planning in English Language Contexts [ELANG-522]

BYU > College of Humanities > Linguistics > Course

Theories and practices of governing entities as they formulate policies relating to the status and codification of the English language.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: or equivalent.

Language Testing [LING-660]

BYU > College of Humanities > Linguistics > Course

Construction, analysis, use, and interpretation of language tests.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Linguistic Foundations: Meanings in Language [LING-603]

BYU > College of Humanities > Linguistics > Course

Principles of semantics and pragmatics emphasizing analytical procedures and applications to real world language problems.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Ling 330 or ELang 223 or equivalent experience.

Linguistic Foundations: Sounds of Language [LING-601]

BYU > College of Humanities > Linguistics > Course

Principles of phonetics and phonology emphasizing analytical procedures and applications to real world language problems.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Ling 330 or ELang 223 or equivalent experience.

Linguistic Foundations: Structures of Language [LING-602]

BYU > College of Humanities > Linguistics > Course

Principles of morphology and syntax emphasizing analytical procedures and applications to real world language problems.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Ling 330 or ELang 223 or equivalent experience.

Master's Project [LING-698R]

BYU > College of Humanities > Linguistics > Course

Design, production, and evaluation of MA project in Linguistics or TESOL. May involve various media: paper/print, computer software, audio recordings, or video recordings. Supervised by graduate advisory committee chair.

Hours: 1.0-3.0 Credit, 0.0 Lecture, 0.0 Lab
Prerequisites: Completion of first-semester courses for TESOL MA students.

Master's Thesis [LING-699R]

BYU > College of Humanities > Linguistics > Course

Hours: 1.0-9.0 Credit, ARR Lecture, 0.0 Lab
Prerequisites: Completion of first-semester courses for TESOL MA students.

Middle English [ELANG-526]

BYU > College of Humanities > Linguistics > Course

Detailed study of the principal dialects of Middle English, as illustrated in the literature of the period.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: or equivalent.

Natural Language Processing [LING-581]

BYU > College of Humanities > Linguistics > Course

Intensive overview of natural language processing, including computational techniques, hands-on experience with linguistic technologies and corpora, language modeling approaches, and readings from current research.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Good programming skills in at least one language (preferably LISP, Prolog, C, C++, Perl, or Java) and a knowledge of basic discrete math. Upper-division linguistics/computers and the humanities students with less programming experience may enroll with instructor`s consent.

Old English 1 [ELANG-525]

BYU > College of Humanities > Linguistics > Course

Old English grammar and vocabulary; traditional syntactical patterns in various types of Old English prose and poetry.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: or equivalent.

Old English 2 [ELANG-548]

BYU > College of Humanities > Linguistics > Course

Additional reading in Old English, emphasizing sound changes, dialects, and textual production.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Problems in Linguistics and Applied Linguistics [LING-580R]

BYU > College of Humanities > Linguistics > Course

Advanced research in language acquisition, sociolinguistics, psycholinguistics, linguistics field study, applied linguistics.

Hours: 1.0-3.0 Credit, 3.0 Lecture, 0.0 Lab

Professional Development in Linguistics [LING-605]

BYU > College of Humanities > Linguistics > Course

Prepares students for careers in linguistics and related fields by focusing on essential skill development such as effective writing and presentation strategies, and by applying linguistics knowledge to real-world problem solving.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Psycholinguistics [LING-545]

BYU > College of Humanities > Linguistics > Course

Research and theory behind how the mind interprets, stores, retrieves, and produces language. Anatomical structures and physiological processes of the brain dealing with language.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Ling 445 or instructor's consent.

Readings in Linguistics [LING-590R]

BYU > College of Humanities > Linguistics > Course

Individual study of current linguistic literature. Occasional discussion sessions with instructor and other class members.

Hours: 1.0-3.0 Credit, ARR Lecture, 0.0 Lab
Prerequisites: Instructor's consent.

Research Design in Linguistics [LING-604]

BYU > College of Humanities > Linguistics > Course

Overview of, and experience in, research approaches and methodologies in linguistics and applied linguistics with a concentration on department faculty research interests.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Research in Corpus Linguistics [LING-585]

BYU > College of Humanities > Linguistics > Course

Design and use of corpora for research with a focus on variation in language (by register, dialect, time, author, etc.).

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Ling 485 or instructor's approval.

Research in TESOL [LING-620]

BYU > College of Humanities > Linguistics > Course

Analyzing and interpreting published research for language teachers, writing a review of literature, recognizing various research approaches and assessing their appropriateness, and designing empirical research that is both valid and reliable.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Seminar in Early Modern English [ELANG-547]

BYU > College of Humanities > Linguistics > Course

Seminar in a specific topic about the English language from 1500 to 1800. Emphasis on contributing to the research about this period.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Sociolinguistics [LING-550]

BYU > College of Humanities > Linguistics > Course

Research and theory of how language functions in culture and society; focus on development, typology, and description of the relationship between language and society.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Ling 452 or instructor's approval.

Structure of Modern English [ELANG-529]

BYU > College of Humanities > Linguistics > Course

A thorough consideration of the syntactic structures and patterns of Modern English, with some attention given to possible applications.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: or instructor's consent.

Studies in Language [ELANG-521R]

BYU > College of Humanities > Linguistics > Course

Topics vary.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: or equivalent.

TESOL Methods and Materials Application [LING-611]

BYU > College of Humanities > Linguistics > Course

Practical application of language teaching methods and materials, including materials development and selection and technology for use in a mentored teaching practicum.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

TESOL Methods and Materials Overview [LING-610]

BYU > College of Humanities > Linguistics > Course

Foundation course surveying concepts, procedures, and techniques in second/foreign language teaching methodology and materials selection. Includes observing ESL classes in various contexts.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Admission to the TESOL graduate program.

TESOL Practicum [LING-612]

BYU > College of Humanities > Linguistics > Course

Sustained and supervised practice teaching at the English Language Center.

Hours: 3.0 Credit, 0.0 Lecture, 8.0 Lab

TESOL Seminar [LING-695]

BYU > College of Humanities > Linguistics > Course

Integrating TESOL theory and practice; final preparation for TESOL career paths; refining and publicly presenting and defending thesis or project results.

Hours: 1.0 Credit, 1.0 Lecture, 0.0 Lab
Prerequisites: Completion of majority of TESOL MA courses and not-yet-defended thesis or project.

TESOL Supervision-Administration Practicum [LING-679]

BYU > College of Humanities > Linguistics > Course

Actual fieldwork in TESOL settings involving supervision, in-service training, and program administration.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

TESOL Teaching Skills: Listening, Speaking, and Pronunciation [LING-671]

BYU > College of Humanities > Linguistics > Course

Processes involved in listening and speaking in a second language. Application of phonetic and phonemic study of American English pronunciation will be included.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Ling 610.

TESOL Teaching Skills: Reading, Writing, & Vocabulary [LING-670]

BYU > College of Humanities > Linguistics > Course

Processes involved in reading, writing, and vocabulary acquisition, emphasizing how these skills are developed in a second/foreign language.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Ling 610.

Topics and Readings in Modern Linguistics [LING-600]

BYU > College of Humanities > Linguistics > Course

Develops graduate-level understanding and analytical skills in linguistics and its subfields.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Admission to the Linguistics MA program.

Varieties of English [ELANG-568]

BYU > College of Humanities > Linguistics > Course

Research and theory of issues regarding regional and social variation in English, including world Englishes and English-based pidgins and creoles

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Baker, Matthew J

BYU > College of Humanities > Linguistics > Faculty

Assistant Professor
Linguistics and English Language
PhD, Iowa State University, 2017

Brown, Earl K

BYU > College of Humanities > Linguistics > Faculty

Associate Professor
Linguistics and English Language
PhD, University of New Mexico, 2008

Chapman, Don William

BYU > College of Humanities > Linguistics > Faculty

Associate Professor
Linguistics and English Language
PhD, University of Toronto, Canada, 1995
Research Interest: Old English Language and Literature; History of the English Language; Medieval Literature

Clifford, Ray Thomas

BYU > College of Humanities > Linguistics > Faculty

Associate Professor
Linguistics and English Language
PhD, University of Minnesota, Minneapolis, 1977
Research Interest: Language Acquisition; Language Testing

Davies, Mark Edward

BYU > College of Humanities > Linguistics > Faculty

Professor
Linguistics and English Language
PhD, University of Texas, Austin, 1992
Research Interest: Corpus Design and Use; Linguistic Databases; Historical Syntax and Syntactical Variation; Spanish and Portuguese

Dewey, Dan P

BYU > College of Humanities > Linguistics > Faculty

Professor
Linguistics and English Language
PhD, Carnegie Mellon, 2002
Research Interest: Second Language Acquisition; Language Acquisition, Japanese

Eckstein, Grant Taylor

Assistant Professor
Linguistics and English Language
PhD, University of California, Davis, 2014

Eddington, David S

Professor
Linguistics and English Language
PhD, University of Texas, Austin, 1993
Research Interest: Experimental Linguistics; Phonology; Morphology; Spanish

Eggington, William Gregory

Professor
Linguistics and English Language
PhD, University of South California, 1985
Research Interest: Varieties of English; Contrastive Rhetoric; Language Policy

Elzinga, Dirk Allen

Associate Professor
Linguistics and English Language
PhD, University of Arizona, 1999
Research Interest: Phonological Theory and Analysis; Uto-Aztecan Languages

Evans, Norman Wall

Associate Professor
Linguistics and English Language
EdD, University of Southern California, 2001
Research Interest: Writing in a Second Language; Curriculum Development; Language Program Administration and Assessment

Hallen, Cynthia Leah

Associate Professor
Linguistics and English Language
PhD, University of Arizona, 1991
Research Interest: Rhetoric, Lexicography; Philology; Stylistics; Poetics

Henrichsen, Lynn E

Professor
Linguistics and English Language
EdD, University of Hawaii, 1987
Research Interest: TESOL; Methodology; Materials Development; Teacher Education; ESL K-12; EFL

Liu, Yu

Assistant Professor
Linguistics and English Language
PhD, Sun Yat-sen University, China, 2010
Research Interest: Teaching Chinese as a Second Language; Linguistics & Applied Linguistics

Lonsdale, Deryle W

Associate Professor
Linguistics and English Language
PhD, Carnegie Mellon University, 1997
Research Interest: Formal Syntax and Semantics; Computational Linguistics; Salish Languages

Manning, Alan Dee

Professor
Linguistics and English Language
PhD, Louisiana State University, 1988
Research Interest: Linguistics Theory; Information Design; Syntax

Nuckolls, Janis Bozic

Professor
Linguistics and English Language
PhD, University of Chicago, 1990
Research Interest: Quichua Grammar; Ideophony; Morphology; Anthropological Linguistics; Cultural Semantics; Discourse Pragmatics

Oaks, Dallin Dixon

Associate Professor
Linguistics and English Language
PhD, Purdue University, 1990
Research Interest: English Linguistics; Structure of English; Ambiguity; Old English Language

Parker, Jeffrey R

Assistant Professor
Linguistics and English Language
PhD, The Ohio State University, 2016

Rawlins, Jacob D

Assistant Professor
Linguistics and English Language
PhD, Iowa State University, 2013

Reynolds, Robert Joshua

BYU > College of Humanities > Linguistics > Faculty

Assistant Professor
Linguistics and English Language
PhD, Universitetet i Tromso, 2016

Rogers, Christopher L

BYU > College of Humanities > Linguistics > Faculty

Assistant Professor
Linguistics and English Language
PhD, University of Utah, 2010

Skousen, Royal Jon

BYU > College of Humanities > Linguistics > Faculty

Professor
Linguistics and English Language
PhD, University of Illinois, 1972
Research Interest: Analogical Modeling; Textual Criticism

Smemoe, Wendy Baker

BYU > College of Humanities > Linguistics > Faculty

Associate Professor
Linguistics and English Language
PhD, University of Illinois, Urbana-Champaign, 2002
Research Interest: Second Language Acquisition; Psycholinguistics; Phonetics; Speech Perception and Production

Tanner, Mark W

BYU > College of Humanities > Linguistics > Faculty

Assistant Professor
Linguistics and English Language
PhD, University of Pennsylvania, 1991
Research Interest: Language Acquisition; TESOL; Sociolinguistics

Mathematics

BYU > College of Physical and Mathematical Sciences > Department

Address

Mathematics
275 TMCB
801-422-2062
gradschool@math.byu.edu

Programs

Mathematics [694461]
Mathematics [694463]

The Department of Mathematics has approximately thirty-five graduate students, most of whom are supported by teaching assistantships. These students receive help with tuition as well as a stipend for the teaching support they provide in mathematics department service courses.

Two degrees are offered through the Department of Mathematics: Mathematics—MS; and Mathematics—PhD.

MS students study mathematics courses in preparation for careers in business, industry, government, or education. Other students use a master's degree in mathematics in preparation for a doctoral degree in mathematics or a closely related discipline or a discipline where technical competence is appreciated. Master's students graduate in an average of two years.

The PhD program requires about four years beyond a master's degree. The topic for a PhD dissertation may be chosen from faculty specialties, which include applied mathematics, algebraic geometry, geometric analysis, dynamical systems, number theory, geometric and low-dimensional topology, mathematical biology, group theory, algebra, and operations research.

Chair: Paul M. Jenkins
Graduate Coordinator: Lennard F. Bakker
Associate Chair: Todd Fisher
Associate Chair: Paul Jenkins

Resources & Opportunity

Faculty research interests currently include: algebra, algebraic geometry, applied mathematics, combinatorial and geometric group theory, dynamical systems, geometric and low-dimensional topology, mathematical biology, matrix analysis, number theory, numerical analysis, and partial differential equations.

For a more detailed description of the graduate program requirements, see www.math.byu.edu/graduate.

Financial Assistance

Most of the graduate students in mathematics are supported by teaching assistantships. Current teaching assistants generally receive a salary as well as tuition support. For exact amounts of financial support and other details, contact the Mathematics Department via e-mail at gradschool@math.byu.edu.

Mathematics (MS) [694461]

Graduate mathematics courses: approved graduate mathematics courses include all classes numbered above 500. Temporary advisor: upon admission to the graduate program, the graduate coordinator will assign each student a temporary advisor until the student chooses a permanent one. Students should communicate with their advisors as soon as they arrive on campus.

Requirements for Degree—Thesis Program.

> Credit hours (30): Minimum 24 coursework hours in approved proposed graduate mathematics with a grade of C+ or better in each, and six thesis hours (Math 699R). Three of the course hours must be from one of the three areas of Applied Mathematics, Analysis, or Algebra, and another three course hours must be from one of the remaining two areas. With the approval of the graduate coordinator, graduate level courses in other departments can be used toward the coursework hours.
>
> Examinations: The Examination requirement in the Thesis and Non-Thesis requirements can be met by way of coursework or by way of written examination, as explained below, in two of three broadly defined areas of Applied Mathematics, Analysis, and Algebra, by the end of the year two. Failure by a Masters student to meet the Examination requirement by the end of year two will result in the discontinuation of financial support of that Masters student at the end of year two.
>
> Continuing Masters students have the option of meeting the Examination requirement under the current or new system.
>
> Thesis. Each student in the program is required to write a thesis on a mathematical topic at a level well beyond what they encounter in the classroom. The master's thesis usually includes an introductory chapter that is a comprehensive survey of the literature on the student's research topic.
>
> Oral defense of thesis. Upon completion of the thesis and before graduation, the student is required to give an oral presentation of his work.

Requirements for Degree—Nonthesis Program.

Credit Hours (32): Minimum 30 coursework hours in approved proposed graduate mathematics with a grade of C+ or better in each, and two hours for the project (Math 698R). Three of the course hours must be from one of three areas of Applied Mathematics, Analysis, or Algebra, and another three course hours must be from one of the remaining two areas. With the approval of the graduate coordinator, graduate level courses in other departments can be used toward credit hours

Examinations: The Examination requirement in the Thesis and Non-Thesis requirements can be met by way of coursework or by way of written examination, as explained below, in two of three broadly defined areas of Applied Mathematics, Analysis, and Algebra, by the end of the year two. Failure by a Masters student to meet the Examination requirement by the end of year two will result in the discontinuation of financial support for that Masters student at the end of year two.

Continuing Masters students have the option of meeting the Examination requirement under the current or new system.

Project, Paper and Presentation: Complete a project (Math 698R) focused on an area of advanced mathematics, write a paper about the project, and present a 45-minute talk based on the paper.

Coursework.

To meet the Examination requirement by way of coursework, a Masters student will need to earn an A- or better in two course, or their equivalents at another institution, with one course in one of the three areas and another course in one of the remaining two areas. Courses in the area of Applied Mathematics include but are not limited to Math 510, Math 511, Math 521, Math 522, Math 611, and Math 636. Courses in the area of Analysis include but are not limited to Math 532, Math 540, Math 541, Math 565, Math 641, and Math 655. Courses in the area of Algebra include but are not limited to Math 561, Math 571, Math 572, Math 586, Math 656, and Math 676. A graduate course, or its equivalent at another institution, can only be used to count towards one of the three areas. For example, Math 636 (Probability 1) is both Applied Mathematics and Analysis, but it can only be counted for one of these two areas. The Graduate Committee will maintain a list of associations of graduate courses with the three areas.

A Masters student may meet the Examination requirement by way of graduate coursework completed as an undergraduate.

Written Examinations.

To meet the Examination requirement by way of written examination, a Masters student will need to pass written examinations in two of the three areas. The written examinations will be based on published syllabi associated to the basic courses listed below. If a Masters student has earned an A- or better in one course associated to one of the three areas, but not in another course in another area, the Masters student need only pass one written examination in an area not met by coursework. Written examinations will be offered in August/September, January, and May.

1. Applied Mathematics: Math 521 and Math 522
2. Analysis: Math 540 and Math 541
3. Algebra: Math 571 and Math 572

The Graduate Committee may change the basic courses associated to any of the three areas, but there will always be two basic courses associated to each of the three areas. No written examinations are available for other courses.

Required Tests

GRE and GRE Math Subject Test

Additional Tests

Undergraduate degree in mathematics, or a math minor together with one year of analysis/advanced calculus, and one semester of abstract algebra

Mathematics (PhD) [694463]

The doctoral program prepares students for a career in research and teaching at the university level or in basic research in a nonacademic setting.

Requirements for Degree.

1. Credit hours (54): minimum 36 coursework hours in mathematics courses numbered 600 or above (Math 521, 522, 540, 541, 571, 572 may be substituted) with a grade of B or better in each, plus 18 dissertation hours (Math 799R). More than nine credit hours of Math 695R being counted towards the coursework hours requires approval of the graduate coordinator. Graduate level courses in other departments can be counted toward the courswork hours with the approval of the graduate coordinator.

2. **Required courses: complete six credit hours in one of the three areas: Applied Mathematics, Analysis, and Algebra, and complete six credit hours in one of the remaining two areas.**
3. **Examinations. See below for changes. (Current policy on Defense of Dissertation remains unchanged.)**
4. **Dissertation. A Ph.D. student must register for and complete a minimum of 18 hours of dissertation credit Math 799R. No more than 18 hours may count toward the 54 hours required, and all 18 hours may not be taken in one term or semester. Registration for dissertation credit and work on the dissertation must be concurrent. A Ph.D. student may not register for Math 799R until that student has completed the Examiniation requirement and completed 27 credit hours of the required 36 credit hours of coursework.**
5. ***Defense of Dissertation:* A final oral defense of the dissertation is conducted by a faculty committee consisting of the student's research adviser, two other readers of the dissertation (one of whom may be an outside examiner) and two other members of the faculty.**

The Examination requirement ensures that Ph.D. students have acquired a sufficient level of mathematical mastery to undertake high-level research. The Examination requirement can be met by way of coursework or by way of written examination, as explained below, in two of three broadly defined areas of Applied Mathematics, Analysis, and Algebra, by the end of year two. Failure of a Ph.D. student to meet the Examination requirement by the end of year two will result in the discontinuation of funding at the end of year two.

Continuing Ph.D. students have the option to meet the Examination requirement under the current or new system.

Coursework. To meet the Examination requirement by way of coursework, a Ph.D. student will need to earn an A- or better in four courses, or their equivalents at another institution, with two of the four courses in one of the three areas and two courses in one of the remaining two areas. Courses in the area of Applied Mathematics include but are not limited to Math 510, Math 511, Math 521, Math 522, Math 611, and Math 636. Courses in the area of Analysis included but are not limited to Math 532, Math 540, Math 541, Math 565, Math 641, and Math 655. Courses in the area of Algebra include but are not limited to Math 561, Math 571, Math 572, Math 586, Math 656, and Math 676. A graduate course or its equivalent at another institution can only be used to count towards one of the three areas. For example, Math 636 (Probability 1) is both Applied Mathematics and Analysis, but it can only be counted for one of these two areas. The Graduate Committee will maintain a list of associations of graduate courses with the three areas.

Written examinations. To meet the Examination requirement by way of written examination, a Ph.D. student will need to pass written examinations in two of the three areas. The written examinations will be based on published syllabi associated to the basic courses listed below. If a Ph.D. student as earned an A-or better in two courses associated to one of the three areas, but not in two courses in another area, the Ph.D. student need only pass one written examination in an area not met by coursework. Written examinations will be offered in August/September, January, and May.

1. **Applied Mathematics: Math 521 and Math 522**
2. **Analysis: Math 540 and Math 541**
3. **Algebra: Math 571 and Math 572**

The Graduate Committee may change the basic courses associated to any of the three areas, but there will always be two basic courses associated to each of the three areas. No written examinations are available for other courses.

Required Tests

GRE and GRE Math Subject Test

Additional Requirements

1. **Undergraduate mathematics degree or equivalent**
2. **One year of mathematical analysis or advanced calculus**
3. **One year of abstract algebra**
4. **GRE and GRE Math Subject Test**

(Math-Chem-C S-Geol-MthEd-Phscs-Stat) Business Career Essentials in Science and Math

[MATH-500]

Introduction for science, math, and statistics majors to careers in industry. Project planning, oral and written business presentations, business accounting, and technology readiness.

Hours: 1.5 Credit, 1.5 Lecture, 0.0 Lab

Advanced Probability 1 [MATH-636]

BYU > College of Physical and Mathematical Sciences > Mathematics > Course

Measure-theoretic probability. Axioms for and construction of probability spaces. Random variables, expectation, uniform integrability, independence, convergence of sequences of random variables, conditioning.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Advanced Probability 2 [MATH-637]

BYU > College of Physical and Mathematical Sciences > Mathematics > Course

Measure-theoretic stochastic processes. Martingales, Markov processes, Brownian motion, stochastic integration.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Advanced Special Topics in Topology [MATH-751R]

BYU > College of Physical and Mathematical Sciences > Mathematics > Course

Current topics in topology of research interest.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Advanced Topics in Applied Mathematics [MATH-513R]

BYU > College of Physical and Mathematical Sciences > Mathematics > Course

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Instructor's consent.

Algebra 1 [MATH-571]

BYU > College of Physical and Mathematical Sciences > Mathematics > Course

Group theory, ring theory.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Math 372 or equivalent.

Algebra 2 [MATH-572]

BYU > College of Physical and Mathematical Sciences > Mathematics > Course

Modules, vector spaces, field theory, Galois theory.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Algebra 3 [MATH-673]

BYU > College of Physical and Mathematical Sciences > Mathematics > Course

Topics from representation theory of finite groups and associative algebras. Groebner bases, homological algebra, tensor algebras, commutative rings, advanced finite group theory.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Math 572 or equivalent.

Algebraic Geometry 1 [MATH-663]

BYU > College of Physical and Mathematical Sciences > Mathematics > Course

Basic definitions and theorems on varieties, sheaves, and schemes.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Math 676 or concurrent enrollment.

Algebraic Geometry 2 [MATH-664]

BYU > College of Physical and Mathematical Sciences > Mathematics > Course

Cohomology of schemes. Classification problems. Applications.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Algebraic Topology [MATH-656]

BYU > College of Physical and Mathematical Sciences > Mathematics > Course

A rigorous treatment of the fundamentals of homology and cohomology of spaces: simplicial, singular, and cellular homology; excision; Mayer-Vietoris sequence; homology with coefficients; homology and the fundamental group; universal coefficient theory; cup product; and Poincare Duality.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Math 553 or equivalent.

Applied Discrete Probability [MATH-536]

BYU > College of Physical and Mathematical Sciences > Mathematics > Course

Rigorous probability without the use of measure theory. Intensive study of finite and countable probability spaces. Applications to particle statistics, random walks, Markov decision processes, information theory, and asset pricing.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Commutative Algebra [MATH-676]

BYU > College of Physical and Mathematical Sciences > Mathematics > Course

Commutative rings, modules, tensor products, localization, primary decomposition, Noetherian and Artinian rings, application to algebraic geometry and algebraic number theory.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Complex Analysis [MATH-532]

BYU > College of Physical and Mathematical Sciences > Mathematics > Course

Introduction to theory of complex analysis at beginning graduate level. Topics: Cauchy integral equations, Riemann surfaces, Picard's theorem, etc.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Math 352 or instructor's consent.

Differential Geometry [MATH-565]

BYU > College of Physical and Mathematical Sciences > Mathematics > Course

A rigorous treatment of the theory of differential geometry.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Math 342 or equivalent.

Differential Topology [MATH-655]

BYU > College of Physical and Mathematical Sciences > Mathematics > Course

An introduction to smooth manifolds and their topology: smooth manifolds; tangent, vector, and cotangent bundles; immersions, submersions, and embeddings; tubular neighborhoods; transversality; differential forms, integration, and Stoke's Theorem; deRham cohomology; and degree theory.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Math 342 or equivalent; Math 553 or equivalent.

Doctoral Dissertation [MATH-799R]

BYU > College of Physical and Mathematical Sciences > Mathematics > Course

Hours: 1.0-9.0 Credit, ARR Lecture, ARR Lab

Dynamical Systems [MATH-635]

BYU > College of Physical and Mathematical Sciences > Mathematics > Course

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Finite Element Methods for Numerical Partial Differential Equations [MATH-611]

BYU > College of Physical and Mathematical Sciences > Mathematics > Course

A rigorous introduction to the numerical method of finite elements with focus on the mathematical foundations of the subject.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: CS-142 or equivalent, Math 541.

Foundations of Topology 1 [MATH-553]

BYU > College of Physical and Mathematical Sciences > Mathematics > Course

An introduction to the topology of the plane and algebraic topology: simplicial complexes, CW-complexes, the fundamental group, classification of covering spaces, homotopy, Seifer-van Kampen Theorem, Jordan Curve Theorem, and Invariance of Domain.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Math 341 or equivalent.

Foundations of Topology 2 [MATH-554]

BYU > College of Physical and Mathematical Sciences > Mathematics > Course

An introduction to the topology of manifolds with particular emphasis on low dimensions: topological and smooth manifolds; smooth maps; tangent spaces; vector fields and flows; Sard's Theorem; Morse Theory; classification of compact manifolds in dimensions 1 and 2; and theory of 3 dimensional manifolds.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Math 553 or instructor's consent.

Homological Algebra [MATH-677]

BYU > College of Physical and Mathematical Sciences > Mathematics > Course

Chain complexes, derived functors, cohomology of groups, ext and tor, spectral sequences, etc. Application to algebraic geometry and algebraic number theory.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Introduction to Algebraic Geometry 1 [MATH-561]

BYU > College of Physical and Mathematical Sciences > Mathematics > Course

Basic definitions and theorems on affine, projective, and quasi-projective varieties.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Math 571 or concurrent enrollment.

Introduction to Algebraic Geometry 2 [MATH-562]

BYU > College of Physical and Mathematical Sciences > Mathematics > Course

Local properties of quasi-projective varieties. Divisors and differential forms.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Introduction to Algebraic Number Theory [MATH-586]

BYU > College of Physical and Mathematical Sciences > Mathematics > Course

Algebraic integers; different and discriminant; decomposition of primes; class group; Dirichlet unit theorem; Dedekind zeta function; cyclotomic fields; valuations; completions.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Math 372 or equivalent.

Introduction to Analytic Number Theory [MATH-587]

BYU > College of Physical and Mathematical Sciences > Mathematics > Course

Arithmetical functions; distribution of primes; Dirichlet characters; Dirichlet's theorem; Gauss sums; primitive roots; Dirichlet L-functions; Riemann zeta-function; prime number theorem; partitions.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Math 352 or equivalent.

Introduction to Dynamical Systems 1 [MATH-534]

BYU > College of Physical and Mathematical Sciences > Mathematics > Course

Discrete dynamical systems; iterations of maps on the line and the plane; bifurcation theory; chaos, Julia sets, and fractals. Computational experimentation.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Math 334, 341; or equivalents.

Linear Analysis [MATH-540]

BYU > College of Physical and Mathematical Sciences > Mathematics > Course

Normed vector spaces and linear maps between them.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Master's Project [MATH-698R]

BYU > College of Physical and Mathematical Sciences > Mathematics > Course

Hours: 2.0 Credit, 2.0 Lecture, 0.0 Lab

Master's Thesis [MATH-699R]

BYU > College of Physical and Mathematical Sciences > Mathematics > Course

Hours: 1.0-9.0 Credit, ARR Lecture, 0.0 Lab

Matrix Analysis [MATH-570]

BYU > College of Physical and Mathematical Sciences > Mathematics > Course

Special classes of matrices, canonical forms, matrix and vector norms, localization of eigenvalues, matrix functions, applications.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Math 213 or 302 or 313 or equivalent.

Matrix Theory 1 [MATH-621]

BYU > College of Physical and Mathematical Sciences > Mathematics > Course

Symmetric matrices, spectral graph theory, interlacing, the Laplacian matrix of a graph.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Matrix Theory 2 [MATH-622]

BYU > College of Physical and Mathematical Sciences > Mathematics > Course

Research topics in combinatorial matrix theory.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Measure and Integration Theory [MATH-641]

BYU > College of Physical and Mathematical Sciences > Mathematics > Course

Abstract measure and integration theory; L(p) spaces; measures on topological and Euclidean spaces.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Math 541 or instructor's consent.

Methods of Applied Mathematics 1 [MATH-521]

BYU > College of Physical and Mathematical Sciences > Mathematics > Course

Possible topics include variational, integral, and partial differential equations; spectral and transform methods; nonlinear waves; Green's functions; scaling and asymptotic analysis; perturbation theory; continuum mechanics.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Math 334 or equivalent.

Methods of Applied Mathematics 2 [MATH-522]

BYU > College of Physical and Mathematical Sciences > Mathematics > Course

Possible topics include variational, integral, and partial differential equations; spectral and transform methods; nonlinear waves; Green's functions; scaling and asymptotic analysis; perturbation theory; continuum mechanics.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Math 521 or equivalent.

Modeling and Analysis of Partial Differential Equations [MATH-547]

BYU > College of Physical and Mathematical Sciences > Mathematics > Course

Methods for modeling and analyzing partial differential equations.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Math 334, 342; or equivalents.

Modular Forms [MATH-682]

BYU > College of Physical and Mathematical Sciences > Mathematics > Course

An introduction to modular forms including Fourier expansions, dimension formulas, Hecke operators, generalizations, and applications.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Math 371 and Math 352, or equivalents.

Network Theory [MATH-525]

BYU > College of Physical and Mathematical Sciences > Mathematics > Course

Representing networks mathematically. Measures and metrics, computer algorithms, random graphs, and large-scale structures. Percolation and network resilience. Dynamical systems on networks.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Math 413 or Math 334 (or concurrent enrollment).

Nonlinear Analysis [MATH-640]

BYU > College of Physical and Mathematical Sciences > Mathematics > Course

Differential calculus in normed spaces, fixed point theory, and abstract critical point theory.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Numerical Methods for Linear Algebra [MATH-510]

BYU > College of Physical and Mathematical Sciences > Mathematics > Course

Numerical matrix algebra, orthogonalization and least squares methods, unsymmetric and symmetric eigenvalue problems, iterative methods, advanced solvers for partial differential equations.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Math 410 or equivalent.

Numerical Methods for Partial Differential Equations [MATH-511]

BYU > College of Physical and Mathematical Sciences > Mathematics > Course

Finite difference and finite volume methods for partial differential equations. Stability, consistency, and convergence theory.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Math 303 or 447; 410; or equivalents.

Readings in Mathematics [MATH-695R]

BYU > College of Physical and Mathematical Sciences > Mathematics > Course

Hours: 1.0-2.0 Credit, 2.0 Lecture, 0.0 Lab

Real Analysis [MATH-541]

BYU > College of Physical and Mathematical Sciences > Mathematics > Course

An introduction to abstract measure and Lebesgue integration theory.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Math 341; Math 314 or Math 342; or equivalents.

Special Topics in Algebra [MATH-675R]

BYU > College of Physical and Mathematical Sciences > Mathematics > Course

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Special Topics in Analysis [MATH-643R]

BYU > College of Physical and Mathematical Sciences > Mathematics > Course

Advanced topics in analysis drawn from pure and applied mathematics.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Math 641 or instructor's consent.

Theory of Ordinary Differential Equations [MATH-634]

BYU > College of Physical and Mathematical Sciences > Mathematics > Course

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Math 334, 341; or equivalents.

Theory of Partial Differential Equations 1 [MATH-647]

BYU > College of Physical and Mathematical Sciences > Mathematics > Course

Classical theory of canonical linear PDEs. Introduction to Sobolev spaces and their used in second order elliptic equations.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Topics in Algebraic Number Theory [MATH-686R]

BYU > College of Physical and Mathematical Sciences > Mathematics > Course

Current topics of research interest.

Hours: 3.0 Credit, 0.0 Lecture, 0.0 Lab
Prerequisites: Permission of the instructor.

Topics in Analytic Number Theory [MATH-687R]

BYU > College of Physical and Mathematical Sciences > Mathematics > Course

Current topics of research interest.

Hours: 3.0 Credit, 0.0 Lecture, 0.0 Lab
Prerequisites: Math 352, 487; or equivalents.

Allen, Mark A

Assistant Professor
Mathematics
PhD, Purdue University, 2013
Research Interest: Partial Differential Equations

Bakker, Lennard Frank

Professor
Mathematics
PhD, Queens University, 1997
Research Interest: Dynamical Systems; Celestial Mechanics

Barker, Blake H

Assistant Professor
Mathematics
PhD, Indiana University, 2014
Research Interest: Applied Mathematics, Partial Differential Equations

Cardon, David Alan

Professor
Mathematics
PhD, Stanford University, 1996
Research Interest: Number Theory

Chahal, Jasbir S

Professor
Mathematics
PhD, Johns Hopkins University, 1979
Research Interest: Number Theory

Chow, Shue Sum

Associate Professor
Mathematics
PhD, Australian National University, 1983
Research Interest: Numerical Analysis

Conner, Greg

Professor
Mathematics
PhD, University of Utah, 1992
Research Interest: Geometric Group Theory; Combinatorial Group Theory; Topology

Dallon, John Carlile

Professor
Mathematics
PhD, University of Utah, 1996
Research Interest: Mathematical Biology

Dorff, Michael John

Professor
Mathematics
PhD, University of Kentucky, 1997
Research Interest: Geometric Function Theory; Complex Analysis; Minimal Surfaces

Doud, Darrin M

Professor
Mathematics
PhD, University of Illinois, 1999
Research Interest: Number Theory

Evans, Emily Jennings

Assistant Professor
Mathematics
PhD, Worcester Polytechnic Institute, 2011
Research Interest: Applied Mathematics; Numerical Analysis

Fisher, Todd Lowell

Associate Professor
Mathematics
PhD, Northwestern University, 2004
Research Interest: Dynamical Systems

Forcade, Rodney W

Professor
Mathematics
PhD, University of Washington, 1971
Research Interest: Combinatorics

Glasgow, Scott Alan

Associate Professor
Mathematics
PhD, University of Arizona, 1993
Research Interest: Optics; Classical and Quantum

Grant, Christopher P

Associate Professor
Mathematics
PhD, University of Utah, 1991
Research Interest: Nonlinear Partial Differential Equations; Dynamical Systems

Griffin, Michael J

Assistant Professor
Mathematics
PhD, Emory University, 2015
Research Interest: Number Theory

Halverson, Denise Marie

Professor
Mathematics
PhD, University of Tennessee, 1999
Research Interest: Geometric Topology

Hughes, Mark Clifford

Assistant Professor
Mathematics
PhD, Stony Brook University, 2014
Research Interest: Geometric Topology and Low-dimensional Topology

Humphries, Stephen Peter

Professor
Mathematics
PhD, University of Wales, 1983
Research Interest: Low-Dimensional Topology; Classical Groups; Representation Theory

Jarvis, Tyler J

Professor
Mathematics
PhD, Princeton University, 1994
Research Interest: Algebraic Geometry

Jenkins, Paul M

Associate Professor
Mathematics
PhD, University of Wisconsin-Madison, 2006
Research Interest: Number Theory; Modular Forms; Partitions

Kent, Curtis Andrew

Assistant Professor
Mathematics
PhD, Vanderbilt University, 2013
Research Interest: Geometric Group Theory

Lawlor, Gary R

Associate Professor
Mathematics
PhD, Stanford University, 1988
Research Interest: Geometric Measure Theory and Area Minimization

Li, Xianjin

Professor
Mathematics
PhD, Purdue University, 1993
Research Interest: Number Theory

Lu, Kening

Professor
Mathematics
PhD, Michigan State University, 1988
Research Interest: Applied Mathematics; Nonlinear Partial Differential Equations; Dynamical Systems

Nielsen, Pace Peterson

Associate Professor
Mathematics
PhD, University of California, Berkley, 2006
Research Interest: Algebra; Number Theory

Priddis, Nathan C

Assistant Professor
Mathematics
PhD, University of Michigan, 2014
Research Interest: Algebraic Geometry

Roundy, Robin Otho

Professor
Mathematics
PhD, Stanford University, 1984
Research Interest: Operations Research

Swenson, Eric L

BYU > College of Physical and Mathematical Sciences > Mathematics > Faculty

Professor
Mathematics
PhD, Brigham Young University, 1993
Research Interest: Geometric Group Theory

Villamizar Gonzalez, Vianey Roman

BYU > College of Physical and Mathematical Sciences > Mathematics > Faculty

Associate Professor
Mathematics
PhD, Rensselaer Polytechnic Institute, 1987
Research Interest: Applied Mathematics; Wave Scattering; Scientific Computing

Webb, Benjamin Zachary

BYU > College of Physical and Mathematical Sciences > Mathematics > Faculty

Assistant Professor
Mathematics
PhD, Georgia Institute of Technology, 2011
Research Interest: Dynamical Systems; Applied Mathematics

Whitehead, Jared P

BYU > College of Physical and Mathematical Sciences > Mathematics > Faculty

Assistant Professor
Mathematics
PhD, University of Michigan, 2012
Research Interest: Applied Mathematics; Partial Differential Equations; Scientific Computing; Dynamical Systems

Department of Mathematics Education

BYU > College of Physical and Mathematical Sciences > Department

Address

Mathematics Education
167 TMCB
801-422-1735
office@mathed.byu.edu

Programs

Mathematics Education [694660]

The Department of Mathematics Education offers a program of graduate study that leads to a Master of Arts degree in Mathematics Education. Through the experiences this program offers, graduate students extend their own understanding of mathematics and deepen their understanding of learners' mathematical thinking. The department values close, detailed mentoring of each graduate student as an active member of the scholarly community - a community devoted to exploration and inquiry into the learning and teaching of mathematics. Our program emphasizes interactions with faculty (both in and out of the classroom) that (a) allow students to explore new mathematical understanding in both personal and social contexts; (b) immerse students deeply in exploration, inquiry, analysis and exposition; and (c) familiarize students with the ever-expanding body of research literature on learning and teaching mathematics and with prevailing research methodologies. The cumulative experiences of our program prepare graduates to enter top mathematics education doctoral programs, to take on important leadership roles in school mathematics education communities, and to return to classrooms better equipped to teach lessons that are informed by students' mathematical thinking.

Chair: Blake E. PetersonAssociate Chair: Keith R. LeathamGraduate Coordinator: Daniel K. Siebert

Resources & Opportunity

The research interests and active projects of the mathematics education faculty touch all levels of mathematics learning and learners. Designed as "research internships in mathematics education," the MA program gives each graduate student opportunities to engage with faculty in one or more research settings.

See https://mathed.byu.edu/graduate/ma-overview-2/ *for a more detailed description of the graduate program in mathematics education.*

Financial Assistance

We see our graduate students as part of the department's active research and teaching community. Thus most full-time graduate students receive support from our department in the form of teaching assistantships. This support includes (a) a stipend, for which the recipient performs teaching duties requiring 20 hours per week and (b) a tuition scholarship for program courses. Information on current levels of support is available from the department.

Mathematics Education (MA) [694660]

Our program offers both thesis and project options.

Requirements for Degree-Thesis Program.

Credit hours (30): minimum of 24 credit hours of approved course work plus 6 thesis hours (MthEd 699R).
Required courses: MthEd 590, 591; and 3 credit hours of 611R; 9 additional credit hours of approved 500- or 600-level mathematics education coursework.
Electives: 6 credit hours of approved graduate level coursework (no more than 3 credits of readings course 695R).
Comprehensive examination: pass a written comprehensive examination. Full-time students take the exam in May following their first year; part-time students take the exam in May following their second year.
Thesis: write a thesis based on an approved research project. Note: A formal thesis proposal and defense is required.
Oral defense of thesis.
Minor (optional): any approved minor.

Requirements for Degree-Project Program.

Credit hours (30): minimum of 27 credit hours of approved coursework plus 3 project hours (Math 698R).
Required courses: MthEd 590, 591; and 3 credit hours of 611R; 12 additional credit hours of approved 500- or 600-level mathematics education courses.
Electives: 6 credit hours of approved graduate level coursework (no more than 3 credits of readings course 695R).
Comprehensive examination: pass a written comprehensive examination. Full-time students take the exam in May following their first year; part-time students take the exam in May following their second year.
Project paper: write a paper based on an approved project. Note: A formal project proposal and defense is required.
Oral defense of project paper.
Minor (optional): any approved minor.

Required Test

GRE

Additional Requirements

1. Credit equivalent to a BA in Mathematics Education at BYU
2. State teacher certification

Algebraic Reasoning [MTHED-661]

BYU > College of Physical and Mathematical Sciences > Department of Mathematics Education > Course

Fundamental concepts (e.g., variables, equality, pattern recognition, function, covariation, equations), processes (e.g., mathematizing, generalizing, modeling), and research in algebraic reasoning.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: BA in mathematics education or equivalent.

Calculus Teaching and Learning [MTHED-663]

BYU > College of Physical and Mathematical Sciences > Department of Mathematics Education > Course

Fundamental calculus concepts as well as the curricula, reform efforts, and research associated with teaching and learning calculus.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: BA in mathematics education or equivalent.

Euclidean Geometry: Content, Learning, and Teaching [MTHED-562]

BYU > College of Physical and Mathematical Sciences > Department of Mathematics Education > Course

Euclidean geometry, including classical problems, polyhedra, transformations, congruence, similarity, integer geometry, minimization; technology in geometry, Van Hiele levels, role of proof, and high school curriculum.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: MthEd 362 or equivalent.

Foundational Issues in Learning Mathematics [MTHED-590]

BYU > College of Physical and Mathematical Sciences > Department of Mathematics Education > Course

Introduction to research in mathematics learning; mathematical thinking; cognitive, social, and philosophical approaches to describing mathematics learning.

Hours: 3.0 Credit, 2.0 Lecture, 2.0 Lab
Prerequisites: Teaching certificate or completion of student teaching.

Graduate Student Seminar [MTHED-611R]

BYU > College of Physical and Mathematical Sciences > Department of Mathematics Education > Course

Reading, discussing, and writing about relevant public discourse, policies, and issues in the broad arena of mathematics education.

Hours: 1.0 Credit, 1.0 Lecture, 0.0 Lab
Prerequisites: Instructor's consent.

Master's Project [MTHED-698R]

BYU > College of Physical and Mathematical Sciences > Department of Mathematics Education > Course

Hours: 1.0-3.0 Credit, Arr Lecture, 0.0 Lab
Prerequisites: Instructor's consent.

Master's Thesis [MTHED-699R]

BYU > College of Physical and Mathematical Sciences > Department of Mathematics Education > Course

Hours: 0.5-9.0 Credit, ARR Lecture, ARR Lab
Prerequisites: Instructor's consent.

Number and Number Sense [MTHED-660]

BYU > College of Physical and Mathematical Sciences > Department of Mathematics Education > Course

Research on children's understanding of early numbers, number operations, number sense, multidigit arithmetic, fractions, decimals, and proportions.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: BA in mathematics education or equivalent.

Problem Solving [MTHED-550]

BYU > College of Physical and Mathematical Sciences > Department of Mathematics Education > Course

Solving and building explanations and presenting solutions to conceptually important problems. Analyzing research on problem solving and its role in teaching and learning mathematics.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Strong background in undergraduate mathematics; instructor's consent.

Readings in Mathematics Education [MTHED-695R]

BYU > College of Physical and Mathematical Sciences > Department of Mathematics Education > Course

Hours: 0.5-3.0 Credit, ARR Lecture, ARR Lab
Prerequisites: Instructor's consent.

Scholarly Inquiry in Mathematics Education [MTHED-591]

BYU > College of Physical and Mathematical Sciences > Department of Mathematics Education > Course

Introduction to scholarly inquiry in mathematics education; issues in research methodology.

Hours: 3.0 Credit, 2.0 Lecture, 2.0 Lab

Technology for Learning and Teaching Mathematics [MTHED-608]

BYU > College of Physical and Mathematical Sciences > Department of Mathematics Education > Course

Analyzing research relative to learning mathematics with technology; exploring mathematical problems using technology; design curriculum; conducting research in the learning and teaching of mathematics with technology.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: BA in mathematics education or equivalent; MthEd 308 or equivalent.

Topics in Mathematics Education [MTHED-598R]

BYU > College of Physical and Mathematical Sciences > Department of Mathematics Education > Course

Includes specific research areas and curriculum studies of school mathematics topics (i.e. geometry, algebra, and calculus).

Hours: 0.5-3.0 Credit, ARR Lecture, ARR Lab
Prerequisites: Instructor's consent.

Corey, Douglas Lyman

BYU > College of Physical and Mathematical Sciences > Department of Mathematics Education > Faculty

Associate Professor
Mathematics Education
PhD, University of Michigan, 2007
Research Interest: Interests include understanding the characteristics of high-quality mathematics instruction, Japanese mathematics teaching, and Japanese teacher development

Johnson, Kate Ruth

Assistant Professor
Mathematics Education
PhD, Michigan State University, 2013
Research Interest: Research interests are the identities of mathematics teachers in the context of teaching mathematics in ways that illuminate social inequity and empower students to seek social change

Jones, Steven R

Assistant Professor
Mathematics Education
PhD, University of Maryland, 2010
Research Interest: Research focuses on understanding how teachers learn to facilitate student mathematics learning, how teachers learn to use technology in teaching and learning mathematics, how teachers learn to recognize and use students' mathematical thinking, and how their beliefs about mathematics, its teaching and learning are related to the learning-to-teach process

Leatham, Keith Rigby

Professor
Mathematics Education
PhD, University of Georgia, 2002
Research Interest: Research centers on how preservice teachers learn to teach mathematics. Has studied student teaching in the United States and Japan and how the structure of that experience influences the opportunity for preserve teachers to learn. Also how to teach preservice mathematics teachers to recognize and effectively build on student mathematical thinking during instruction

Peterson, Blake Ellis

Professor
Mathematics Education
PhD, Washington State University, 1993
Research Interest: Research interests are on the process of learning to teach mathematics in the United States and in Japan

Siebert, Daniel Kevin

Associate Professor
Mathematics Education
PhD, University of California, San Diego, 2000
Research Interest: Research interests include discourse and literacy in mathematics classrooms

Teuscher, Dawn

Associate Professor
Mathematics Education
PhD, University of Missouri-Columbia, 2008

Williams, Steven R

BYU > College of Physical and Mathematical Sciences > Department of Mathematics Education > Faculty

Professor
Mathematics Education
PhD, University of Wisconsin, Madison, 1989
Research Interest: Research interests include advanced mathematical thinking (including calculus concepts, advanced algebra and proof), and sociocultural approaches to knowledge and classroom discourse

Mechanical Engineering

BYU > Ira A. Fulton College of Engineering and Technology > Department

Address

Mechanical Engineering
360 EB
801-422-1650
mecheng@byu.edu

Programs

Mechanical Engineering [394960]
Mechanical Engineering [394998]

The Department of Mechanical Engineering offers strong graduate programs in a variety of areas, including combustion processes; computational and experimental fluid mechanics; dynamic and mechatronic systems and controls; heat transfer; product design and development; manufacturing systems and processes; materials and materials processing; optimization; micromechanical systems; biomechanics; aerospace; renewable energy; CAM/CAD; and robotics. Specific research activities in these areas are described on the Mechanical Engineering Department Web page at http://www.me.byu.edu.

The Mechanical Engineering Department offers two graduate degrees: Mechanical Engineering—PhD and Mechanical Engineering—MS.

The Mechanical Engineering Department and the Marriott School of Management offer a joint program leading to a master of science (MS) degree in mechanical engineering and a master of business administration (MBA) degree.

The graduate program in mechanical engineering has about 100 graduate students. The typical time required to obtain an MS degree is approximately two years, whereas a PhD degree usually requires about five years beyond the BS degree. The joint MS/MBA program generally takes about three years to complete.

Chair: Dale Tree
Graduate Coordinator: Anton E. Bowden

Financial Assistance

Many graduate students work in the ME department as teaching assistants (TA) or as research assistants (RA). Department scholarship money is also available for graduate students. Funding for assistantships and scholarships is administered by individual faculty members.

Mechanical Engineering (PhD) [394960]

BYU > Ira A. Fulton College of Engineering and Technology > Mechanical Engineering > Program

The purpose of the PhD program in the Department of Mechanical Engineering is to provide a world-class education to doctoral students, in an atmosphere enlightened by the principles of the gospel. Specifically, the purpose of this program is to produce graduates who:

1. Eagerly pursue lifelong learning through study and faith in professional, religious and personal aspects of life.
2. Understand the fundamental concepts of math, science, and engineering, particularly as they apply to thermal and mechanical systems.

3. **Implement the fundamental principles of engineering through hands-on design and analysis, using modern engineering tools and practices, to solve complex, real-world engineering problems with high standards of personal and professional ethics.**
4. **Demonstrate leadership in a specific sub-discipline of mechanical engineering through the development of new knowledge and practices.**
5. **Confidently present their intellectual efforts in a technical forum of professionals in their area of expertise.**
6. **Express faith in God and a desire to serve Him through lifelong service to family, church, profession and community.**

Credit hours: *For students with an approved MS*: **a minimum of 36 credit hours beyond the MS, which includes 18 hours of dissertation credit. The remaining 18 hours are graduate-level coursework, half of which must be in mechanical engineering and none of which can be project credit.** *For students entering directly from the BS*: **a minimum of 54 credit hours beyond the BS, which includes 18 hours of dissertation credit. The remaining 36 hours are graduate-level coursework, half of which must be in mechanical engineering and none of which can be project credit.**
Program of Study: a study list must be submitted during the second semester of doctoral study. All coursework will be approved on the basis of how to best fulfill research needs, career goals, and integrity of the mechanical engineering program.
PhD qualifying examination. For students with an MS, the examination must be taken no later than the second offering of the exam during the PhD program. For students entering directly from the BS, the examination must be taken no later than the third offering of the exam during the PhD program. Exams are administered in March and October of each year. The written examination may be retaken only once.
Prospectus: a written prospectus should be defended and submitted no later than the first anniversary of passing the qualifying examination. The prospectus must be approved at least one year prior to the dissertation oral examination.
Biannual Evaluations: each student's progress will be evaluated twice a year, in January and May. Satisfactory progress must be maintained in order to remain in the program.
Residency: work toward the PhD must be completed under the direction of a graduate faculty advisor while the student is in residence at BYU for at least two consecutive semesters of 6 or more hours of registration. "In residence" is defined as living and conducting research in the general vicinity of the university, where the student has ready access to research facilities and consultation with the faculty.
Graduate Seminar: all doctoral students are required to attend 8 graduate seminars each semester, for two semesters. The seminars include technical presentations by industry experts, faculty members, and invited guests.
Dissertation: A written dissertation describing significant original research must be completed and approved. A maximum of 18 hours of dissertation credits (Me En 799R) may count toward the PhD. All work toward the dissertation must be completely open for public review and publication. Exceptions must have written approval from the department and college in advance of any work performed.
Defense: all PhD students are required to pass an oral examination of their dissertation research.
Time limit: PhD students have eight years maximum to complete the degree.
GPA: PhD students must have a cumulative 3.0 GPA or above in all courses counted toward the PhD degree.

Please see the PhD Handbook at **http://me.byu.edu/content/phd-mechanical-engineering** *for more details regarding requirements.*

Required Tests

GRE (TOEFL or IELTS also required for applicants whose native language is not English)

Additional Requirements

1. **BS in Mechanical Engineering or a related program (Engineering, Physical or Mathematical Science)**
2. **Resume**

Mechanical Engineering (MS) [394998]

The purpose of the MS program in the Department of Mechanical Engineering is to provide a world-class education to students pursuing a master's degree, in an atmosphere enlightened by the principles of the gospel. Specifically, the purpose of this program is to produce graduates who:

1. **Eagerly pursue lifelong learning through study and faith in professional, religious and personal aspects of life.**
2. **Understand the fundamental concepts of math, science, and engineering, particularly as they apply to thermal and mechanical systems.**
3. **Implement the fundamental principles of engineering through hands-on design and analysis, using modern engineering tools and practices, to solve complex, real-world engineering problems with high standards of personal and professional ethics.**
4. **Demonstrate leadership in a specific sub-discipline of mechanical engineering through the development of new knowledge and practices.**
5. **Confidently present their intellectual efforts in a technical forum of professionals in their area of expertise.**

6. **Express faith in God and a desire to serve Him through lifelong service to family, church, profession and community.**

Credit hours: a minimum of 30 hours, six of which are thesis hours. The remaining 24 hours are coursework, half of which must be offered by Mechanical Engineering.
Program of study: each student must submit a study list of approved courses during the first semester.
Prospectus: each student must submit a written prospectus during the second semester.
Biannual Evaluations: each student's progress will be evaluated twice a year, in January and May. Satisfactory progress must be maintained in order to remain in the program.
Residency: work toward the MS must be completed under the direction of a graduate faculty advisor while the student is in residence at BYU for at least two consecutive semesters of 6 or more hours of registration. "In residence" is defined as living and conducting research in the general vicinity of the university, where the student has ready access to research facilities and consultation with the faculty.
Graduate Seminar: all MS students are required to attend 8 graduate seminars each semester, for two semesters. The seminars include presentations by industry experts, faculty members, and invited guests.
Thesis: a written thesis describing original research must be completed and approved. A maximum of six thesis credits (Me En 699R) may count toward the MS. All work toward the thesis must be open for public review and publication. Exceptions must have written approval from the department and college in advance of any work performed.
Defense: MS students are required to pass an oral examination of their thesis research.
Timelimit: There is a one-year minimum and a five-year maximum to complete the MS degree.
GPA: MS students must have a cumulative 3.0 GPA or above in all courses counted toward the master's degree.
A 39 credit hour coursework only option is available under certain circumstances. Approval must be obtained prior to applying for admission. Departmental financial assistance is generally not available for the coursework option.

Please see the MS Handbook at: http://me.byu.edu/content/graduate-program-handbooks for more details regarding requirements.

Required Tests

GRE (TOEFL or IELTS also required for applicants whose native language is not English)

Additional Requirements

1. **BS in Mechanical Engineering or a related program (Engineering, Physical or Mathematical Science)**
2. **Resume**

(Me En-CE En) Aircraft Structures [ME EN-523]

BYU > Ira A. Fulton College of Engineering and Technology > Mechanical Engineering > Course

Requirements, objectives, loads, materials, and tools for design of airframe structures; static behavior of thin-wall structures; durability and damage tolerance; certification and testing. Airframe component team design project.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

(Me En-CE En) Composite Structures [ME EN-602]

BYU > Ira A. Fulton College of Engineering and Technology > Mechanical Engineering > Course

Design and analysis of advanced composite structures; deflections, buckling, and vibration of thin plates and sandwich plates; design guidelines; design examples; project.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

(Me En-CE En) Computer Structural Analysis and Optimization [ME EN-504]

BYU > Ira A. Fulton College of Engineering and Technology > Mechanical Engineering > Course

Matrix stiffness method for 1D, 2D, and 3D skeletal structure classes. Implementing the matrix stiffness method as a computer program. Nonlinear second-order structural analysis. Structural optimization techniques including stress-ratio method, gradient-based methods, and genetic algorithms.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

(Me En-CE En) Computer-Aided Engineering Software Development [ME EN-570]

BYU > Ira A. Fulton College of Engineering and Technology > Mechanical Engineering > Course

Programming methods for development of engineering software. Data structures, architecture, libraries, and graphical user interfaces, with applications to CAD systems.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: or C programming.

(Me En-CE En) Continuum and Solid Mechanics [ME EN-604]

BYU > Ira A. Fulton College of Engineering and Technology > Mechanical Engineering > Course

Derivation of partial differential equations of continuum mechanics. Closed-form solution of classical problems in elasticity. Theory of beams, plates, and axisymmetric shells with closed-form solutions. Large displacement strain tensors, stress tensors, equilibrium equations, beam theory, and plate theory. Constitutive theory including nonlinear elasticity, viscoelasticity, plasticity, and hyperelasticity.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

(Me En-CE En) Linear Finite Element Methods [ME EN-507]

BYU > Ira A. Fulton College of Engineering and Technology > Mechanical Engineering > Course

Linear static finite element analysis of elastic solids; problem formulation, finite element discretization, and equation solving; stability, interpolation theory, and error estimates. Introduction to underlying continuum mechanics principles. Isogeometric analysis as a generalization of classical finite element analysis; basic principles of analysis-suitable computational geometry.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

(Me En-CE En) Nonlinear Finite Element Methods [ME EN-607]

BYU > Ira A. Fulton College of Engineering and Technology > Mechanical Engineering > Course

Nonlinear dynamic finite element analysis of solids. Nonlinear continuum mechanics, finite element formulation, and elementary solution algorithms for nonlinear algebraic problems. focusing on hyperelastic solids. Advanced topics in isogeometric analysis, computational analysis-suitable geometry, and adaptivity. An introduction to dynamics; basic methods of time integration, such

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

(Me En-CE En) Optimization Techniques in Engineering [ME EN-575]

BYU > Ira A. Fulton College of Engineering and Technology > Mechanical Engineering > Course

Application of computational optimization techniques to constrained engineering design. Theory and application of gradient-based and gradient-free algorithms for unconstrained and constrained nonlinear problems. Robust design methods.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: C, C++, or similar computer language.

(Me En-EC En 673) Digital Control Systems [ME EN-633]

BYU > Ira A. Fulton College of Engineering and Technology > Mechanical Engineering > Course

Design of digital controllers for dynamical systems, analysis using the z-transform, digital filter implementation, application of transform-based classical design methods, and modern state-space techniques.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Me En 431 or EC En 483 or equivalent.

(Me En-EC En 674) Flight Dynamics and Control [ME EN-634]

BYU > Ira A. Fulton College of Engineering and Technology > Mechanical Engineering > Course

Dynamics of flight, stability, and control derivatives, longitudinal and lateral control design; state-space control strategies for aircraft; and unmanned air vehicle applications.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Me En 431 or EC En 483 or equivalent.

(Me En-EC En 773) Linear System Theory [ME EN-733]

BYU > Ira A. Fulton College of Engineering and Technology > Mechanical Engineering > Course

Mathematical introduction to time-varying linear systems; state-space descriptions, controllability, observability, Lyapunov stability, observer-based control. Design of linear quadratic regulators and infinite-horizon Kalman filters.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Me En 431 or EC En 483 or equivalent.

(Me En-EC En 774) Non-Linear System Theory [ME EN-734]

BYU > Ira A. Fulton College of Engineering and Technology > Mechanical Engineering > Course

Mathematical introduction to non-linear dynamic systems. Topics include Lyapunov methods, passivity, input-output stability, and non-linear feedback design.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Me En 431 or EC En 483 or equivalent.

(Me En-EC En) Microelectromechanical Systems (MEMS) [ME EN-550]

BYU > Ira A. Fulton College of Engineering and Technology > Mechanical Engineering > Course

Design, fabrication, and applications of MEMS. Mechanical properties governing their design and reliability and the processing technologies used to fabricate them.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: or equivalent.

(Me En-Phscs 660) Acoustic Systems [ME EN-660]

BYU > Ira A. Fulton College of Engineering and Technology > Mechanical Engineering > Course

Analyzing and modeling electro-mechano-acoustic systems. Transducers, calibration, and acoustical measurements. Sound sources, arrays, coupling, radiation, and directivity. Duct acoustics and acoustic filters.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: or instructor's consent.

(Me En-Phscs) Fundamentals of Acoustics [ME EN-561]

BYU > Ira A. Fulton College of Engineering and Technology > Mechanical Engineering > Course

Vibrating systems, elastic media, mechanical energy, and radiation. Sound generation, transmission, reflection, and reception.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: or equivalent; Phscs 461 or concurrent enrollment.

(MeEn-CEEn) Design and Materials Applications [ME EN-500]

BYU > Ira A. Fulton College of Engineering and Technology > Mechanical Engineering > Course

Materials selection in design; effects of materials properties, structure and geometry on performance; process selection and property modification techniques; basics of material failure mechanism.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Ce En 321 or Me En 372; Ce En 203; Me En 250; or equivalents.

(MeEn-CEEn) Plasticity and Fracture [ME EN-503]

BYU > Ira A. Fulton College of Engineering and Technology > Mechanical Engineering > Course

Tensor algebra; stress and deformation tensors; relationships between dislocation slip, yielding, plastic constitutive behavior, and microstructure development; cracks and linear elastic fracture mechanics.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

(MeEn-CEEn) Stress Analysis and Design of Mechanical Structures [ME EN-501]

BYU > Ira A. Fulton College of Engineering and Technology > Mechanical Engineering > Course

Stress analysis and deflection of structures; general bending and torsion, with computer applications to mechanical and aerospace structure design.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Advanced Design Tool Development [ME EN-673]

BYU > Ira A. Fulton College of Engineering and Technology > Mechanical Engineering > Course

Development and implementation of advanced tools and methods for mechanical design.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: MeEn 570 and instructor's consent.

Advanced Strategies for Product Development [ME EN-671]

BYU > Ira A. Fulton College of Engineering and Technology > Mechanical Engineering > Course

Theory of advanced strategies for product development. New concepts developed, tested, and applied to real products.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: MeEn 475 or instructor's consent.

Aerodynamics [ME EN-515]

BYU > Ira A. Fulton College of Engineering and Technology > Mechanical Engineering > Course

Predict aerodynamic forces and moments, like lift and drag, for 2D airfoils, 3D wings, and rotating blades across a range of Mach and Reynolds numbers. Utilize modern computational and aerodynamic methods.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Applied Engineering Math [ME EN-505]

BYU > Ira A. Fulton College of Engineering and Technology > Mechanical Engineering > Course

Advanced engineering mathematics that builds a foundation for graduate mechanical engineering courses and research. Topics include tensor analysis, vector calculus, and solution methods for partial differential equations.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: or equivalent.

Combustion [ME EN-522]

BYU > Ira A. Fulton College of Engineering and Technology > Mechanical Engineering > Course

Introduction to first- and second-law ideal gas combustion systems along with elementary models of homogeneous and heterogeneous premixed and/or diffusion flames.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Compliant Mechanisms [ME EN-538]

BYU > Ira A. Fulton College of Engineering and Technology > Mechanical Engineering > Course

Design and analysis of compliant mechanisms and compliant structures. Large-deflection analysis/force displacement relationships; mechanisms synthesis.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Me En 475 or concurrent enrollment; or instructor's consent.

Compressible Fluid Flow [ME EN-510]

BYU > Ira A. Fulton College of Engineering and Technology > Mechanical Engineering > Course

One-dimensional analysis of compressible flow with area change, friction, heat transfer, shock waves, and combined effects, including experimental methods.

Hours: 3.0 Credit, 3.0 Lecture, 1.5 Lab
Prerequisites: Me En 312 or equivalent.

Computational Fluid Dynamics and Heat Transfer [ME EN-541]

BYU > Ira A. Fulton College of Engineering and Technology > Mechanical Engineering > Course

Fluid dynamics and heat transfer analysis by numerical methods. Theory and implementation of finite difference and finite volume methods.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: or instructor's consent.

Convective Heat Transfer [ME EN-643]

BYU > Ira A. Fulton College of Engineering and Technology > Mechanical Engineering > Course

Advanced engineering analysis of convective heat transfer in internal and external laminar and turbulent flows.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: or equivalent.

Dynamics of Mechanical Systems [ME EN-534]

BYU > Ira A. Fulton College of Engineering and Technology > Mechanical Engineering > Course

Hamiltonian and Lagrangian dynamics, generalized coordinates, linear and angular momentum, Euler angles, rigid-body motions, and gyroscopic effects. Theory taught with applications integrated.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Environmental Fluid Dynamics [ME EN-612]

BYU > Ira A. Fulton College of Engineering and Technology > Mechanical Engineering > Course

Fluid dynamics of the atmosphere and oceans related to free surface, two layer, and continuously stratified flows emphasizing linear and nonlinear free-surface and internal gravity waves.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Me En 512 or instructor's consent.

Experimental Fluid Mechanics [ME EN-613]

BYU > Ira A. Fulton College of Engineering and Technology > Mechanical Engineering > Course

Experimental methods for analyzing fluid flow and heat transfer. Theory and application of techniques in velocimetry, pressure sensing, thermometry, and flow visualization.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Me En 312 or equivalent.

Global Product Development [ME EN-579]

BYU > Ira A. Fulton College of Engineering and Technology > Mechanical Engineering > Course

Preparing students to be leaders in globally-influenced product development organizations. Includes visits to U.S. and overseas companies and universities.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Me En 475 or equivalents; senior or graduate status.

Graduate Thesis/Dissertation [ME EN-699R]

BYU > Ira A. Fulton College of Engineering and Technology > Mechanical Engineering > Course

Under the guidance of a faculty mentor, students will carry out research that helps them progress toward the completion of a Masters or Doctoral degree.

Hours: 1.0-18.0 Credit, ARR Lecture, ARR Lab

Intermediate Fluid Dynamics [ME EN-512]

BYU > Ira A. Fulton College of Engineering and Technology > Mechanical Engineering > Course

Fluid transport properties, review of integral analysis, Navier-Stokes equations, exact and similarity solutions, boundary layers, vorticity, jets and wakes.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: or instructor's consent, Me En 505 previous or concurrent enrollment.

Intermediate Heat and Mass Transfer [ME EN-540]

BYU > Ira A. Fulton College of Engineering and Technology > Mechanical Engineering > Course

Analytical approaches to conduction, convection, and radiation heat transfer. Introduction to mass transfer.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: or equivalent; concurrent enrollment in Me En 505.

Intermediate Thermodynamics [ME EN-521]

BYU > Ira A. Fulton College of Engineering and Technology > Mechanical Engineering > Course

Review of first and second law analysis; exergy; equations of state and other thermodynamic relations; properties of mixtures and multiphase systems; chemical reactions and equilibrium.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Introduction to Biomechanical Engineering [ME EN-555]

BYU > Ira A. Fulton College of Engineering and Technology > Mechanical Engineering > Course

Mechanics of biological systems. A continuum mechanics-based approach to the structure, function, mechanical response, and active remodeling of hard and soft tissues of the body.

Hours: 3.0 Credit, 3.0 Lecture, 0.3 Lab
Prerequisites: or equivalent.

Kinetics of Materials [ME EN-554]

BYU > Ira A. Fulton College of Engineering and Technology > Mechanical Engineering > Course

A unified treatment of kinetic processes in materials,including transport, chemical reactions, phase transformations, and microstructure evolution. Emphasis is placed on crystalline materials, but application to glasses, polymers and other material systems are discussed throughout. Specific topics include: kinetic theory of gases,rate theory, reaction kinetics, irreversible thermodynamics,diffusion in a broad spectrum of material classes (both atomistic mechanisms and phenomenological/continuum level models), influence of defects of diffusion, evolution of surfaces, phase transformations (solidification, nucleation and growth, spinodal decomposition), coarsening, grain growth, and morphological instabilities.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Or Instructor Consent

Manufacturing Competitiveness: Quality and Productivity [ME EN-585]

BYU > Ira A. Fulton College of Engineering and Technology > Mechanical Engineering > Course

Production strategies to improve quality, decrease cost, and increase throughput to create market advantage; effective production management systems; applying quality improvement tools to process data; theory of constraints and lean production.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Materials Modeling: Methods in Atomistic, Mesoscale, and Continuum Simulations [ME EN-556]

BYU > Ira A. Fulton College of Engineering and Technology > Mechanical Engineering > Course

Theory and application of various computer simulations to model, understand, and predict the properties of real materials. Specific topics include: first-principles atomistic models, empirical potential atomistic models, mesoscale models, and continuum finite element analysis.

Hours: 3.0 Credit, 2.5 Lecture, 0.5 Lab

Mechanical Vibrations [ME EN-535]

BYU > Ira A. Fulton College of Engineering and Technology > Mechanical Engineering > Course

Introduction to energy methods for system modeling, eigenvalues and mode shapes, frequency response, and spectral characterization of vibrations.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: or equivalent.

Metallurgy [ME EN-558]

BYU > Ira A. Fulton College of Engineering and Technology > Mechanical Engineering > Course

Fundamental principles of physical metallurgy and their application to design.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: or instructor's consent.

Microstructure and Properties [ME EN-651]

BYU > Ira A. Fulton College of Engineering and Technology > Mechanical Engineering > Course

Representations of inhomogenous material microstructure, crystallography, orientation distribution functions, Fourier representations, bounding theories for defect-insensitive properties, grain boundaries and grain boundary engineering, microstructure sensitive design.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Neuromechanics of Movement [ME EN-552]

BYU > Ira A. Fulton College of Engineering and Technology > Mechanical Engineering > Course

Biomechanics and neural control of human movement. Dynamics of neuromusculoskeletal system; human-machine interaction; movement disorders and assistive/rehabilitative technology; current research techniques.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: or instructor's consent.

Product Design [ME EN-576]

BYU > Ira A. Fulton College of Engineering and Technology > Mechanical Engineering > Course

Emerging design methodology and design strategies for complex systems, including decomposition methods and sensitivity analysis. Advanced CAD/CAE/CAM technologies applied to design.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: or instructor's consent.

Product Development Automation [ME EN-574]

BYU > Ira A. Fulton College of Engineering and Technology > Mechanical Engineering > Course

Design automation, network modeling of design systems, mass customization, agent-based methods, transnational design systems. Aerospace, automotive, and consumer product applications.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Me En 475; or equivalents.

Production System Design [ME EN-684]

BYU > Ira A. Fulton College of Engineering and Technology > Mechanical Engineering > Course

Designing manufacturing systems for competitive advantage. Factory layout, simulation and design, and tooling design. Integration of manufacturing design into product development process.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: MeEn 671 or instructor's consent.

Radiative Heat Transfer [ME EN-642]

BYU > Ira A. Fulton College of Engineering and Technology > Mechanical Engineering > Course

Advanced engineering analysis of radiant heat exchange between surfaces, in enclosures, and in absorbing, emitting, and scattering media.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Robotics - Kinematics, Dynamics, and Control [ME EN-537]

BYU > Ira A. Fulton College of Engineering and Technology > Mechanical Engineering > Course

Forward and inverse kinematics for serial robot manipulators. Relating joint velocities to end-effector velocity. Lagrangian and Newton-Euler treatment of robot dynamics. Basic control techniques including introductions to force control and visual servoing.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Selected Topics in Mechanical Engineering [ME EN-795R]

BYU > Ira A. Fulton College of Engineering and Technology > Mechanical Engineering > Course

Hours: 1.0-3.0 Credit, ARR Lecture, ARR Lab

Special Problems for Master's Students [ME EN-695R]

BYU > Ira A. Fulton College of Engineering and Technology > Mechanical Engineering > Course

Hours: 1.0-3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Department chair's consent.

Special Topics in Mechanical Engineering [ME EN-595R]

BYU > Ira A. Fulton College of Engineering and Technology > Mechanical Engineering > Course

Hours: 0.5-18.0 Credit, 2.0 Lecture, 0.0 Lab
Prerequisites: Departmental consent.

Systems Engineering and CAD Applications [ME EN-578]

BYU > Ira A. Fulton College of Engineering and Technology > Mechanical Engineering > Course

Principles and practices involved in systems engineering and design with related applications in advanced CAD models generation, optimization, and automation.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Topics in Materials [ME EN-595R]

BYU > Ira A. Fulton College of Engineering and Technology > Mechanical Engineering > Course

Hours: 0.5-18.0 Credit, 2.0 Lecture, 0.0 Lab
Prerequisites: Departmental consent.

Topics in Mechanical Design [ME EN-595R]

BYU > Ira A. Fulton College of Engineering and Technology > Mechanical Engineering > Course

Hours: 0.5-18.0 Credit, 2.0 Lecture, 0.0 Lab
Prerequisites: Departmental consent.

Turbulence [ME EN-611]

BYU > Ira A. Fulton College of Engineering and Technology > Mechanical Engineering > Course

Introduction to turbulence, flow instability and transition, concept of scale, Reynolds averaging, wall-bounded and free shear flows, closure modes, and measurement techniques.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Adams, Bradley R

BYU > Ira A. Fulton College of Engineering and Technology > Mechanical Engineering > Faculty

Associate Professor
Mechanical Engineering
PhD, University of Utah, 1993
Research Interest: Combustion, Radiative Heat Transfer

Blotter, Jonathan D

BYU > Ira A. Fulton College of Engineering and Technology > Mechanical Engineering > Faculty

Professor
Mechanical Engineering
PhD, Virginia Polytechnic Institute and State University, 1996
Research Interest: Experimental Mechanics, Vibrations and Acoustics

Bowden, Anton E

BYU > Ira A. Fulton College of Engineering and Technology > Mechanical Engineering > Faculty

Associate Professor
Mechanical Engineering
PhD, University of Utah, 2003
Research Interest: Biomechanics, Continuum Mechanics, Nonlinear FEA, Biomaterials

Charles, Steven Knight

BYU > Ira A. Fulton College of Engineering and Technology > Mechanical Engineering > Faculty

Associate Professor
Mechanical Engineering
PhD, Harvard-MIT Division of Health Sciences and Techno, 2008
Research Interest: Control of Movement; Movement Disorders

Colton, Mark B

BYU > Ira A. Fulton College of Engineering and Technology > Mechanical Engineering > Faculty

Associate Teaching Professor
Mechanical Engineering
PhD, University of Utah, 2006
Research Interest: Haptic Interfaces; Dynamic Systems, Robotics

Crockett, Julie

BYU > Ira A. Fulton College of Engineering and Technology > Mechanical Engineering > Faculty

Associate Professor
Mechanical Engineering
PhD, University of California, San Diego, 2007
Research Interest: Fluid Mechanics, Geophysical Fluid Flow

Fullwood, David T

Professor
Mechanical Engineering
PhD, University of London, 1992
Research Interest: Composites; Computational Methods for Materials, Material Design, Microscopy

Gorrell, Steven E

Associate Professor
Mechanical Engineering
PhD, Iowa State University, 2001
Research Interest: Experimental and Computational Fluid Dynamics, Turbomachinery

Homer, Eric R

Associate Professor
Mechanical Engineering
PhD, Massachusetts Institute of Technology, 2010
Research Interest: Computational Materials Science and Engineering; Materials Modeling

Howell, Larry L

Professor
Mechanical Engineering
PhD, Purdue University, 1993
Research Interest: Compliant Mechanisms and Rigid-body Mechanisms

Iverson, Brian D

Assistant Professor
Mechanical Engineering
PhD, Purdue University, 2008
Research Interest: Thermal Radiation Absorption and Chemical Sensing

Jensen, Brian D

Professor
Mechanical Engineering
PhD, University of Michigan, 2004
Research Interest: Microelectromechanical Systems (MEMS), Biological MEMS

Johnson, Oliver Kent

Assistant Professor
Mechanical Engineering
PhD, Massachusetts Institute of Technology, 2015
Research Interest: Microstructure Modeling & Design; Grain Boundary Networks; Synthesis of Advanced Materials

Jones, Matthew R

Associate Professor
Mechanical Engineering
PhD, University of Illinois, 1993
Research Interest: Heat Transfer, Energy, Inverse Problems

Killpack, Marc D

Assistant Professor
Mechanical Engineering
PhD, Georgia Institute of Technology, 2013
Research Interest: Robotics; Controls, Haptic Sensing

Magleby, Spencer P

Professor
Mechanical Engineering
PhD, University of Wisconsin, Madison, 1988
Research Interest: Engineering Design, Product Development; Compliant Mechanisms

Mattson, Christopher Andrew

Professor
Mechanical Engineering
PhD, Rensselaer Polytechnic Institute, 2003
Research Interest: Multi-Objective Optimization, Product Development; Conceptual Engineering Design

Maynes, Rulon D

Professor
Mechanical Engineering
PhD, University of Utah, 1997
Research Interest: Fluid Mechanics, Transport Phenomena

McLain, Timothy Wayne

Professor
Mechanical Engineering
PhD, Stanford University, 1995
Research Interest: Dynamic Systems, Controls, Autonomous Air Vehicles

Munro, Troy R

Assistant Professor
Mechanical Engineering
PhD, Utah State University and Katholieke University, 2016
Research Interest: Heat Transfer, Thermal Behavior of Materials, Nuclear Energy, Thermal Transport

Nelson, Tracy W

Professor
Mechanical Engineering
PhD, Ohio State University, 1998
Research Interest: Materials and Joining

Ning, Simeon A

Assistant Professor
Mechanical Engineering
PhD, Stanford University, 2011
Research Interest: Multidisciplinary Optimization, Aerodynamics, Wind Energy, Aeronautics

Salmon, John LaNay

Assistant Professor
Mechanical Engineering
PhD, Georgia Institute of Technology, 2013
Research Interest: Systems Engineering, Design and Optimization, Computer-Aided Engineering

Sorensen, Carl David

Professor
Mechanical Engineering
PhD, Massachusetts Institute of Technology, 1985
Research Interest: Design for Manufacture, Manufacturing Processes, Friction Stir Welding

Thomson, Scott L

Associate Professor
Mechanical Engineering
PhD, Purdue University, 2004
Research Interest: Fluid Mechanics, Biomechanics

Tree, Dale Reif

Professor
Mechanical Engineering
PhD, University of Wisconsin, Madison, 1992
Research Interest: Coal and Biomass Combustion, Internal Combustion Engines

Webb, Brent W

Professor
Mechanical Engineering
PhD, Purdue University, 1986
Research Interest: Heat Transfer

Microbiology and Molecular Biology

Address

Microbiology and Molecular Biology
4007 LSB
801-422-2889
mmbio@byu.edu

Programs

Microbiology and Molecular Biology [285181]
Microbiology and Molecular Biology [285180]

The fields of microbiology and molecular biology are closely intertwined and are at the center of some of the most exciting current advances in the biological sciences. With the sequencing of various host and microbial genomes, and the acceleration of technologies for functional genomics and microbial community evaluation, opportunities for significant advances are open to students in our programs.

Graduate programs in Microbiology and Molecular Biology (MMBIO) emphasize a combination of coursework and laboratory experience with an emphasis on the latter. Students are expected to produce a significant body of original research. Our students regularly collaborate on interdisciplinary projects with faculty and students outside of our department. Supporting courses in microbiology and molecular biology may include appropriate courses from various departments in the colleges of Life Sciences, and Physics and Mathematical Sciences. Completion of MMBIO degree programs in the department qualifies students for further graduate study at other universities; employment in educational, industrial, medical, and research institutions; or postdoctoral opportunities leading to careers as research or academic scientists.

The Department of Microbiology and Molecular Biology offers two degrees: Microbiology and Molecular Biology-MS, and Microbiology and Molecular Biology-PhD. Typically there are about thirty graduate students in the department at any time. Approximately one half are PhD students and the rest are M.S. students. Average times in the programs are about two years for an MS degree, about three years beyond a master's for the PhD degree, and about five years for the PhD, going directly from the bachelor's without the master's degree.

Department Chair: Richard A. RobisonGraduate Coordinator: Joel Griffitts

Resources & Opportunity

Electron Optics Laboratory. Researchers can accomplish all standard electron optics procedures. The laboratory has transmission and scanning electron microscopes equipped with X-ray microanalysis capabilities, plus accessory equipment for freeze-fracture, freeze-drying, and necessary support facilities, including confocal laser scan microscopy.

Research Instrumentation Core (RIC) Facility. The RIC houses specialized equipment for use by researchers at BYU. It is equipped with a flow cytometer analyzer and sorter, imaging systems for gels and blots, high-speed centrifuge, plate readers for fluorescence, luminescence, absorbance and radioactivity detection, fluorescent microscope with digital imaging capacity, nanodrop spectrophotometer, microarray scanner, and gas chromatography microbial identification system.

DNA Sequencing Center provides advanced, efficient, and economical services for DNA sequence and DNA fragment acquisition and analysis. Equipment includes illumina Hi-Seq 2500, Applied Biosystems 3730xi DNA Analyzer, Applied Biosystems 3100 Genetic Analyzer, Parallab 350, Genetix QPix2XT, and Sequencer Software.

Proteomics and Biological Mass Spectrometry Facility offers instrumentation to resolve complex proteomes and to identify and characterize the component proteins. Instrumentation assists in identifying proteins in the femtomole range, noncovalent protein interactions, and post-translational modifications, and determining differences in protein expression. The facility is equipped with an Applied Biosystem QSTAR Pulsar Hybrid QqToF Mass Spectrometer and 2D Gel technologies.

Cancer Research Center is an independent organization with members coming from the Colleges of Life Sciences, Engineering and Technology, Health and Human Performance, and Physical and Mathematical Sciences. A primary goal of the Cancer Research Center is to provide a rigorous research training program for students. Our ultimate goal is to find a cure through research and education.

Other Campus Facilities include a microscopy lab, greenhouses, gardens, arboretum, small-animal vivarium, and tissue culture rooms.

Faculty research interests currently include DNA replication, gene regulation, virology, immunology, cancer biology, pathogenesis, host-microbe interactions, molecular evolution, microbial ecology, and clinical lab science.

Financial Assistance

Teaching and research assistantships are offered by the department.

Microbiology and Molecular Biology (PhD) [285181]

Requirements for Degree

Credit hours: candidates without a master's degree: 54 semester hours beyond the baccalaureate, including no more than 18 hours of dissertation credit. Minimum of 36 hours beyond master's degree, including 18 hours of dissertation (MMBio 799R).
Required courses: Bio 503, MMBio 661, 663, 665, 691R, 692R; Electives: 3.0-6.0 coursework elective credits, MMBIO 695R, 18 credits of MMBIO 799R, Dissertation

Elective course list:
MMBIO 510
MMBIO 512
MMBIO 514
MMBIo 516
MMBIO 518
MMBIO 520
MMBIO 522
MMBIO 528R
MMBIO 551R

Semiannual progress reviews.
Presentation of research at an annual retreat.
Qualifying Examination: Student will be required to pass the qualifying exam. This includes (1) written outside grant proposal outside the area of expertise, and (2) oral exam on coursework and grant defense.
Dissertation: standard university dissertation or a journal publication.
Public seminar and oral defense of dissertation.

Required Test

GRE

Additional Requirements

1. Statement of intent explicitly stating field of interest and career goals
2. Baccalaureate degree or equivalent in microbiology or biological or biochemical sciences
3. Classes in chemistry, physics, mathematics, and statistics are recommended

Note: subject tests encouraged: Biochemistry, Cellular and Molecular Biology

Microbiology and Molecular Biology (MS) [285180]

Requirements for Degree

Credit hours (30 hours): minimum 24 course work hours plus 6 thesis hours (MMBio 699R).
Required courses: Bio 503, MMBio 661, 663, 665, 691R, 692R, 695R, 699R.
Electives: 3.0-6.0 coursework elective credits

Elective list

MMBIO 510 (History and Philosophy of MMBIO)
MMBIO 512 (Gene Regulation)
MMBIO 514 (Advanced Immunology)
MMBIO 516 (Bacteria-Host Interactions)
MMBIO 518 (Select Pathogens)
MMBIO 520 (Molecular Virology)
MMBIO 522 (Flow Cytometry)
MMBIO 528R (Current Topics in Pathogenesis)
MMBIO 551R (Current Topics in Microbiology and Molecular Biology)

Semiannual progress reviews.
Presentation of research at an annual retreat.
Thesis: standard university thesis or a journal publication.
Final public seminar on thesis research.
Examination: (A) oral examination on course work and (B) oral examination on thesis. These exams must be scheduled on different days.

Required Test

GRE

Additional Requirements

1. Statement of intent explicitly stating field of interest and career goals
2. Baccalaureate degree or equivalent in microbiology or biological or biochemical science
3. Classes in chemistry, physics, mathematics, and statistics are recommended.

Advanced Immunology [MMBIO-514]

BYU > College of Life Sciences > Microbiology and Molecular Biology > Course

Exploring current topics in immunology through critical reading of primary literature; presentations, group discussions, and analytical writing about specific areas within the discipline.

Hours: 2.0 Credit, 2.0 Lecture, 0.0 Lab
Prerequisites: MMBio 463 or equivalent.

Articulating Science [MMBIO-663]

BYU > College of Life Sciences > Microbiology and Molecular Biology > Course

Identifying open scientific questions and crafting written proposals describing context, impact, and detailed experimental research plans. Also, learning to critically evaluate the scientific writing of others.

Hours: 2.0 Credit, 2.0 Lecture, 0.0 Lab

Bacteria-Host Interactions [MMBIO-516]

BYU > College of Life Sciences > Microbiology and Molecular Biology > Course

Bacterial and host functions that facilitate colonization in pathogenic and symbiotic systems.

Hours: 2.0 Credit, 2.0 Lecture, 0.0 Lab

Current Topics in Microbiology and Molecular Biology [MMBIO-551R]

BYU > College of Life Sciences > Microbiology and Molecular Biology > Course

Readings from current literature on a specific topic; student presentations and discussion.

Hours: 1.0-2.0 Credit, Arr. Lecture, Arr Lab

Current Topics in Pathogenesis [MMBIO-528R]

BYU > College of Life Sciences > Microbiology and Molecular Biology > Course

Readings from current literature on pathogenesis; student presentations and discussion.

Hours: 1.0 Credit, 1.0 Lecture, 0.0 Lab
Prerequisites: MMBio 151, 221, 261 or equivalent.

Doctoral Dissertation [MMBIO-799R]

BYU > College of Life Sciences > Microbiology and Molecular Biology > Course

Hours: 1.0-9.0 Credit, ARR Lecture, ARR Lab

Flow Cytometry [MMBIO-522]

BYU > College of Life Sciences > Microbiology and Molecular Biology > Course

The theory and instrumentation of flow cytometry, including current applications and hands-on training.

Hours: 2.0 Credit, 2.0 Lecture, 0.0 Lab

Gene Regulation [MMBIO-512]

BYU > College of Life Sciences > Microbiology and Molecular Biology > Course

How cells respond to developmental, physiological, and environmental stimuli through molecular mechanisms that modulate DNA structure, DNA transcription, RNA translation, and macromolecular degradation.

Hours: 2.0 Credit, 2.0 Lecture, 0.0 Lab

Genomics [MMBIO-665]

BYU > College of Life Sciences > Microbiology and Molecular Biology > Course

Strategies and methods for genomic studies, emphasizing experimental design and computational and statistical approaches for analyzing data.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Graduate Seminar [MMBIO-691R]

BYU > College of Life Sciences > Microbiology and Molecular Biology > Course

Hours: 1.0 Credit, 1.0 Lecture, 0.0 Lab

History and Philosophy of Microbiology and Molecular Biology [MMBIO-510]

BYU > College of Life Sciences > Microbiology and Molecular Biology > Course

Exploring the historical and philosophical context of great discoveries in microbiology and molecular biology through readings, group discussions, and analytical writing.

Hours: 2.0 Credit, 2.0 Lecture, 0.0 Lab

Master's Thesis [MMBIO-699R]

BYU > College of Life Sciences > Microbiology and Molecular Biology > Course

Hours: 1.0-9.0 Credit, ARR Lecture, ARR Lab

Molecular Genetics in Practice [MMBIO-661]

BYU > College of Life Sciences > Microbiology and Molecular Biology > Course

Fundamental concepts in molecular genetics and protein biochemistry with the following emphases: experimental approaches, model organisms, quantitative reasoning, and statistical analysis.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Molecular Virology [MMBIO-520]

BYU > College of Life Sciences > Microbiology and Molecular Biology > Course

Molecular mechanisms of virus architecture, attachment and entry pathways, replication strategies, oncogenesis, evolution, and mechanisms of pathogenesis.

Hours: 2.0 Credit, 2.0 Lecture, 0.0 Lab
Prerequisites: MMBio 465 or equivalent.

Research [MMBIO-695R]

BYU > College of Life Sciences > Microbiology and Molecular Biology > Course

Hours: 0.5-18.0 Credit, ARR Lecture, ARR Lab

Research in Progress [MMBIO-692R]

BYU > College of Life Sciences > Microbiology and Molecular Biology > Course

Graduate student research presentations. Weekly meetings highlighting current progress and discussion-based feedback from faculty and student peers.

Hours: 1.0 Credit, 1.0 Lecture, 0.0 Lab

Select Pathogens [MMBIO-518]

BYU > College of Life Sciences > Microbiology and Molecular Biology > Course

Current literature in special pathogens.

Hours: 2.0 Credit, 2.0 Lecture, 0.0 Lab
Prerequisites: MMBio 221 or equivalent.

Berges, Bradford K

BYU > College of Life Sciences > Microbiology and Molecular Biology > Faculty

Associate Professor
Microbiology and Molecular Biology
PhD, University of Pennsylvania, 2005
Research Interest: Viral Infections of Humanized Mice

Breakwell, Donald Philip

BYU > College of Life Sciences > Microbiology and Molecular Biology > Faculty

Teaching Professor
Microbiology and Molecular Biology
PhD, Purdue University, 1992
Research Interest: Microbial Ecology

Bridgewater, Laura Clarke

Professor
Microbiology and Molecular Biology
PhD, George Washington University, 1995
Research Interest: Transcriptional Regulation; Developmental Biology

Davis, Mary Feller

Assistant Professor
Microbiology and Molecular Biology
PhD, Vanderbilt University, 2013
Research Interest: Human Genetics

Erickson, David L

Associate Professor
Microbiology and Molecular Biology
PhD, University of Calgary, Canada, 2003
Research Interest: Bacterial Pathogenesis

Evans, Richard Paul

Assistant Professor
Microbiology and Molecular Biology
PhD, Medical College of Virginia, 1983
Research Interest: Molecular Biology

Griffitts, Joel Shelby

Associate Professor
Microbiology and Molecular Biology
PhD, University of California, San Diego, 2004
Research Interest: Plant-Bacterial Interactions

Grose, Julianne House

Associate Professor
Microbiology and Molecular Biology
PhD, University of Utah, 2003
Research Interest: Yeast Carbon Metabolism

Harker, Alan R

Professor
Microbiology and Molecular Biology
PhD, University of Utah, 1982
Research Interest: Microbial Physiology

Hope, Sandra

Teaching Professor
Microbiology and Molecular Biology
PhD, University of Kentucky, 2000
Research Interest: Veterinary Science; Molecular Immunology; Virology

Johnson, Steven M

Associate Professor
Microbiology and Molecular Biology
PhD, Yale University, 2004
Research Interest: Genetic Engineering, Nucleosome Positioning

McCleary, William Russell

Associate Professor
Microbiology and Molecular Biology
PhD, University of California, Berkeley, 1990
Research Interest: Microbial Physiology; Bacterial Signal Transduction

Nielsen, Brent

Professor
Microbiology and Molecular Biology
PhD, Oregon State University, 1985
Research Interest: Plant Molecular Biology

O'Neill, Kim Leslie

Professor
Microbiology and Molecular Biology
PhD, University of Ulster, Northern Ireland, 1986
Research Interest: Genetics; Oncology

Poole, Brian Douglas

Associate Professor
Microbiology and Molecular Biology
PhD, Pennsylvania State University, 2004
Research Interest: Cell-Virus Interactions

Robison, Richard A

Professor
Microbiology and Molecular Biology
PhD, Brigham Young University, 1988
Research Interest: Molecular Biology; Bacterial Pathogenesis; Immunology

Weber, Kelly Scott

BYU > College of Life Sciences > Microbiology and Molecular Biology > Faculty

Assistant Professor
Microbiology and Molecular Biology
PhD, University of Illinois, 2005
Research Interest: Cell and Structural Biology

Wilson, Eric

BYU > College of Life Sciences > Microbiology and Molecular Biology > Faculty

Associate Professor
Microbiology and Molecular Biology
PhD, Montana State University, 2000
Research Interest: Immunology

Music

BYU > College of Fine Arts and Communications > Department

Address

Music
C-550 HFAC
801-422-3149
musicgraduate@byu.edu

Programs

- **Music** [484666]
- **Music** [484668]

The graduate programs in the School of Music are designed to preserve and develop an art form that is essential to human progress and well-being and to provide advanced instruction in the art and craft of music.

The School of Music provides graduate education in composition, music education, musicology, and music performance, and it maintains accreditation for all of its degree programs through the National Association of Schools of Music.

Two degrees are offered through the School of Music: Music-MA, Music-MM. A music minor is also offered.

The School of Music has an average enrollment of seventy graduate students from various U.S. and international areas. The average time for a student to complete a master's degree in music is two years.

Department Chair: Kirt SavilleGraduate Coordinator: Claudine Bigelow

Resources & Opportunity

The Harris Fine Arts Center, which houses the School of Music, contains two concert halls and numerous practice rooms for music, dance, and theatre.

Graduate students have opportunities to perform individually and with groups in both the Madsen Recital Hall and the de Jong Concert Hall in the Harris Fine Arts Center.

*For a more detailed description of the graduate program requirements, see the online***School of Music Graduate Handbook** *on the School of Music's website.*

Financial Assistance

The School of Music offers four types of graduate awards: assistantships, internships, performance awards, and scholarships.

Music (MA) [484666]

The master of arts degree is offered with specializations in Music Education and Musicology. A student whose background exhibits deficiencies in academic areas of music may be required to complete additional prerequisite courses during the MA.

MA in Music Education. This program is for those with an undergraduate degree in Music Education who wish to pursue further academic study as a means to develop professionally. The culminating project is the completion of a thesis. Coursework combines the study of philosophical, research-based, and theoretical views of teaching and learning music with pragmatic approaches to improving music instruction. Efforts are made to plan a program of study based on individual students' needs and interests while maintaining standards of musical and scholarly excellence. Available for full-time or summers-only study.

MA in Musicology. This program prepares students to be teachers and scholars who will promote musical understanding and appreciation for the arts. Students are expected to add to the body of historical and analytical publication that has increased understanding of the history, practice, sociology, and aesthetics of the cultural heritage of Western (and to a lesser degree non-Western) music. This effort should also increase awareness of cultural and historical diversity represented in concert programs and recordings.

Requirements for Specialization-Music Education.

Prerequisite: baccalaureate degree in music or equivalent.
Credit hours (32): minimum 26 course work hours plus 6 thesis hours (Music 699R).
Required courses: Music 501, 672, 673, 674, 675, 698A, 699R; and one appropriate research course outside of music (as approved by advisor).
Choral Emphasis: Music 533R;
Instrumental Emphasis: Music 595.
Electives: 9 hours from graduate courses in one or more fields of music outside the major.
Thesis.
Examinations: (A) comprehensive written examination; (B) final oral exam and defense of thesis.

Requirements for Specialization-Musicology.

Prerequisite: baccalaureate degree in music or equivalent.
Credit hours (32): minimum 26 course work hours plus 6 thesis hours (Music 699R).
Required courses: Music 500, 699R.
Any four courses (12 hours) from 601, 602, 603, 604, 605, 606.
Any three courses (9 hours) from Music 483, 503, 581, 583, 595, 596, 683.
Electives: 3 hours in music or other departments.
Thesis.
Examinations: (A) department language proficiency examination, normally in French or German; (B) comprehensive written examination; (C) final oral exam and defense of thesis.

Required Tests

School of Music Entrance Exam

Additional Requirements

Specific materials related to intended specialization (contact department for details).

Please indicate in the application a desired area of study as well as desired advisor.

Music (MM) [484668]

Application Deadline: December 15

The master of music degree is offered with specializations in Composition, Conducting, Music Education, and Performance.

MM in Composition. The purpose of this specialization is to produce graduates who are prepared to make a significant contribution to the art form, either as composers or as teachers and scholars in composition and theory, and to provide aesthetic enrichment to both the composer and listener.

MM in Conducting. Students develop advanced, personal conducting skills and techniques that are precise and suited to a variety of musical needs; attain confidence, poise, and clarity with the baton; learn effective rehearsal techniques; and become familiar with a variety of instrumental and choral scores representing the repertoire of various music periods and sacred and secular styles. They learn to convey through gesture music's power and gentleness and its directness and subtlety to both the performer and audience and to select and bring to the community the great masterpieces of instrumental and choral literature.

MM in Music Education. This program is for those with an undergraduate degree in Music Education who wish to pursue further academic study as a means to develop professionally. The culminating project is the completion of a professional improvement project. Coursework combines the study of philosophical, research-based, and theoretical views of teaching and learning music with pragmatic approaches to improving music instruction as well as instruction on a primary/secondary instrument, conducting and/or teaching methodologies. Efforts are made to plan a program of study based on individual students' needs and interests while maintaining standards of musical and scholarly excellence. Available for full-time or summers-only study.

MM in Performance. The intent of the specialization is to prepare students with outstanding performance potential to be competitive in performance and teaching careers and to be advocates for the arts in their communities. They may help meet the needs for skilled performers of solo and small and large ensemble music, and they will be able to teach privately and help meet the considerable community demand for excellent private studio teachers.

Requirements for Specialization-Composition.

Prerequisite: baccalaureate degree in music composition or equivalent in previous training.
Credit hours (32): minimum 27 course work hours plus 5 master's composition hours (Music 687R).
Required courses: Music 500, 503, 587R (6 hours), 650, 683, 687R (5 hours); 3 hours from 601, 602, 603, 604, 605, 606; 6 hours from 581, 583, 591, 596.
Electives: 3 hours.
Recital (Music 650)
Examinations: (A) final oral examination; (B) defense of composition.

Requirements for Specialization-Conducting.

Prerequisite: baccalaureate degree in music;
Credit hours: minimum 32 course work hours including recital (Music 697A,B).
Required courses: Music 500, 660R (conducting, 4 hours), ensemble (2 hours), 697A, B.
Band Emphasis: **Music 510, 532, 595, and 8 hours of electives guided by the committee chair to best complete the students academic and professional needs (in addition to the 6 hours of electives listed below).**
Choral Emphasis: **Music 506, 507, 533R (6 hours), and 4 hours of electives guided by the committee chair to best complete the student's academic and professional needs (in addition to the 6 hours of electives listed below).**
Orchestra Emphasis: **Music 508, 509, 532, 595, and 6 hours of electives guided by the committee chair to best complete the student's academic and professional needs (in addition to the 6 hours of electives listed below).**
Electives: 6 hours in nonperformance music graduate courses (as approved by graduate committee) from one or more of the following areas: music education, music history, or music theory.
Recital.
Examinations: (A) jury examination each semester of enrollment in 660R; (B) repertory examination; (C) final oral examination.

Requirements for Specialization-Music Education.

Prerequisite: public school music teacher certification; baccalaureate degree in music.
Credit hours: minimum 32 course work hours including a professional improvement project (Music 698A,B).
Required courses: Music 501, 560R (4 hours), 673, 674, 675; 698A, B.
Choral Emphasis: **Music 533R (6 hours), and 10 hours of electives.**
Instrumental Emphasis; **Music 595; 6 hours from 508, 509, 510, 532R, 534R, 535R; and 8 hours of electives.**
Professional Improvement Project.
Examinations: (A) comprehensive written examination; (B) final oral examination and defense of project.

Requirements for Specialization-Performance.

Prerequisite: baccalaureate degree in performance or equivalent; proficiency in German, French, and Italian diction for voice candidates.
Credit hours: minimum 32 course work hours including recital (Music 697A,B).

Required courses:

Voice Emphasis: Music 500, 505A,B, ensemble (2 hours), 660R (6 hours), 665, 670R (2 hours), 697A,B, and 4 hours of electives in addition to the 6 hours of electives listed below.

Orchestral Instrument Emphasis: Music 500, 505A,B, large ensemble (2 hours), chamber ensemble (2 hours), 660R (6 hours), 665, 670R (2 hours), 697A,B, and 2 hours of electives in addition to the 6 hours of electives listed below. Scholarship students may have additional ensemble requirements; see your graduate adviser for details.

Keyboard Instrument Emphasis: Music 500, 505A,B, ensemble (2 hours), 591, 660R (6 hours), 665, 670R (2 hours), 697A,B, and 2 hours of electives in addition to the 6 hours of electives listed below. The ensemble requirement listed above includes 644R.

Electives: 6 hours in nonperformance music graduate courses (as approved by graduate committee) from one or more of the following areas: music education, music history, or music theory.

Recital.

Examinations: (A) jury examination each semester of enrollment in 660R; (B) repertory examination; (C) final oral examination.

Required Tests

School of Music Entrance Exam

Additional Requirements

Specific materials related to intended specialization (contact department for details).

Please indicate in the application your desired area as well as desired advisor.

Academic Internship [MUSIC-599R]

Internship in creative, performing, producing, or teaching applications of major course work.

Hours: 1.0-6.0 Credit, ARR Lecture, ARR Lab
Prerequisites: Instructor's consent.

Advanced Applied Literature [MUSIC-505B]

Intensification and deeper study of Music 505A materials.

Hours: 2.0 Credit, 2.0 Lecture, 1.0 Lab

Advanced Topics in Keyboard Harmony [MUSIC-591]

Topics vary.

Hours: 2.0 Credit, 2.0 Lecture, 0.0 Lab
Prerequisites: Instructor's consent.

Aesthetics [MUSIC-503]

Fundamental questions of aesthetic theory from classical antiquity to the present, emphasizing musical aesthetics.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Music 306 or equivalent.

Applied Literature [MUSIC-505A]

BYU > College of Fine Arts and Communications > Music > Course

Advanced survey and research of literature.

Hours: 2.0 Credit, 2.0 Lecture, 1.0 Lab
Prerequisites: Minimum of one enrollment in Music 402-407 or equivalent.

Balinese Gamelan [MUSIC-636R]

BYU > College of Fine Arts and Communications > Music > Course

Playing and performing on the Balinese gamelan (percussion) instruments.

Hours: 1.0 Credit, 2.0 Lecture, 0.0 Lab

Band Literature [MUSIC-510]

BYU > College of Fine Arts and Communications > Music > Course

Concentrated study of band literature through analysis and conducting.

Hours: 2.0 Credit, 2.0 Lecture, 0.0 Lab
Prerequisites: Instructor's consent.

Brass Chamber Music [MUSIC-641R]

BYU > College of Fine Arts and Communications > Music > Course

Hours: 1.0 Credit, 0.0 Lecture, 0.0 Lab

Chamber Orchestra [MUSIC-639R]

BYU > College of Fine Arts and Communications > Music > Course

Hours: 1.0 Credit, 0.0 Lecture, 2.0 Lab

Choral Conducting and Development [MUSIC-533R]

BYU > College of Fine Arts and Communications > Music > Course

Principles and practices of score preparation, conducting, and choral development as elements of choral artistry.

Hours: 2.0 Credit, 2.0 Lecture, 0.0 Lab

Choral Literature 1 [MUSIC-506]

BYU > College of Fine Arts and Communications > Music > Course

Concentrated analytical study and application of choral literature through Beethoven.

Hours: 2.0 Credit, 2.0 Lecture, 0.0 Lab
Prerequisites: Instructor's consent.

Choral Literature 2 [MUSIC-507]

BYU > College of Fine Arts and Communications > Music > Course

Concentrated analytical study and application of choral literature from post-Beethoven to the present.

Hours: 2.0 Credit, 2.0 Lecture, 0.0 Lab
Prerequisites: Instructor's consent.

Composition [MUSIC-587R]

BYU > College of Fine Arts and Communications > Music > Course

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Composition for Master's Degree [MUSIC-687R]

BYU > College of Fine Arts and Communications > Music > Course

Hours: 1.0-6.0 Credit, ARR Lecture, ARR Lab
Prerequisites: Graduate music faculty's consent, based on evidence of ability in composition manifested in preliminary work.

Concert Choir [MUSIC-614R]

BYU > College of Fine Arts and Communications > Music > Course

Hours: 1.0 Credit, 0.0 Lecture, 4.0 Lab

Culminating Project [MUSIC-696R]

BYU > College of Fine Arts and Communications > Music > Course

Continuing enrollment in order to complete final degree requirements such as oral exams and qualifications for the thesis or composition.

Hours: 2.0 Credit, Arr Lecture, Arr Lab
Prerequisites: Graduate music major status; completion of all Program of Study coursework.

Fundamentals and Techniques of the Marching Band [MUSIC-576]

BYU > College of Fine Arts and Communications > Music > Course

Planning, charting, and scoring for marching bands.

Hours: 2.0 Credit, 2.0 Lecture, 2.0 Lab
Prerequisites: Music 294, 296 (or equivalents); music education major status.

Graduate Composition Recital [MUSIC-650]

BYU > College of Fine Arts and Communications > Music > Course

Required recital for MM in Composition.

Hours: 1.0 Credit, 0.0 Lecture, 0.0 Lab
Prerequisites: MM in Composition student.

Graduate Instrument Instruction [MUSIC-660R]

BYU > College of Fine Arts and Communications > Music > Course

For performance specialization. Fee.

Hours: 1.0-2.0 Credit, 1.0 Lecture, 0.0 Lab
Prerequisites: Completion of undergraduate performance proficiency requirements and audition; primary instrument only.

Historical and Social Foundations of Music Education [MUSIC-673]

BYU > College of Fine Arts and Communications > Music > Course

Leaders, events, and trends in history of music education, emphasizing sociological implications.

Hours: 2.0 Credit, 2.0 Lecture, 0.0 Lab

Independent Readings [MUSIC-694R]

BYU > College of Fine Arts and Communications > Music > Course

Hours: 1.0-3.0 Credit, ARR Lecture, ARR Lab
Prerequisites: Submission of course contract indicating project, supervising faculty, and graduate coordinator's consent.

Instrumental Conducting and Error Detection [MUSIC-535R]

BYU > College of Fine Arts and Communications > Music > Course

Development of critical rehearsal and conducting skills through score preparation, lesson planning, rehearsal goals and predicting issues, performance accuracy, score transpositions, error detection, conducting gesture analysis, and music-mapping for the development of expressive conducting gesture.

Hours: 2.0 Credit, 2.0 Lecture, 0.0 Lab

Introduction to Professional Improvement Project [MUSIC-698A]

BYU > College of Fine Arts and Communications > Music > Course

Identifying and delineating a project. Study list constructed and advisor assigned.

Hours: 2.0 Credit, ARR Lecture, ARR Lab

Jazz Combo [MUSIC-631R]

BYU > College of Fine Arts and Communications > Music > Course

Formed each semester and includes a rhythm section and two or three wind players. These intimate groups provide intensive experience in improvisation and perform frequently. Also participate in the combo master class. Audition required.

Hours: 1.0 Credit, 1.0 Lecture, 2.0 Lab
Prerequisites: Audition.

Jazz Ensemble [MUSIC-633R]

BYU > College of Fine Arts and Communications > Music > Course

High-caliber musical experience with jazz, rock, Latin, and fusion styles and provides opportunities for growth in improvisation. Audition required.

Hours: 1.0 Credit, 1.0 Lecture, 2.0 Lab
Prerequisites: Audition.

Jazz Legacy Band [MUSIC-635R]

BYU > College of Fine Arts and Communications > Music > Course

Traditional ensemble specializing in early jazz. Band occasionally tours off campus.

Hours: 1.0 Credit, 2.0 Lecture, 0.0 Lab
Prerequisites: Audition.

Keyboard Ensemble [MUSIC-644R]

BYU > College of Fine Arts and Communications > Music > Course

Hours: 1.0 Credit, 0.0 Lecture, 0.0 Lab

Master's Project - Professional Improvement Project [MUSIC-698B]

BYU > College of Fine Arts and Communications > Music > Course

Presentation of project and written report.

Hours: 2.0 Credit, ARR Lecture, ARR Lab

Master's Thesis [MUSIC-699R]

BYU > College of Fine Arts and Communications > Music > Course

Hours: 1.0-9.0 Credit, ARR Lecture, ARR Lab
Prerequisites: Department graduate faculty's consent.

Men's Chorus [MUSIC-612R]

BYU > College of Fine Arts and Communications > Music > Course

Ensemble of male voices that performs a variety of styles and repertoire, ranging from the established literature to popular idioms of the 20th century. Audition required.

Hours: 1.0 Credit, 0.0 Lecture, 5.0 Lab
Prerequisites: Audition and director's consent.

Music Education Research Techniques [MUSIC-501]

BYU > College of Fine Arts and Communications > Music > Course

Hours: 2.0 Credit, 2.0 Lecture, 0.0 Lab
Prerequisites: Graduate status.

Music in the Baroque Era [MUSIC-603]

BYU > College of Fine Arts and Communications > Music > Course

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Music in the Classic Period [MUSIC-604]

BYU > College of Fine Arts and Communications > Music > Course

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Music in the Middle Ages [MUSIC-601]

BYU > College of Fine Arts and Communications > Music > Course

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Music in the Renaissance [MUSIC-602]

BYU > College of Fine Arts and Communications > Music > Course

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Music in the Romantic Period [MUSIC-605]

BYU > College of Fine Arts and Communications > Music > Course

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Music of the Contemporary Period [MUSIC-606]

BYU > College of Fine Arts and Communications > Music > Course

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Musical Research Techniques [MUSIC-500]

BYU > College of Fine Arts and Communications > Music > Course

Hours: 2.0 Credit, 2.0 Lecture, 0.0 Lab
Prerequisites: Graduate status.

Opera Ensemble [MUSIC-617R]

BYU > College of Fine Arts and Communications > Music > Course

Training and experience in operatic excerpts, chamber opera, and full productions for operatic soloists.

Hours: 1.0-3.0 Credit, 6.0 Lecture, 0.0 Lab
Prerequisites: Audition; instructor's consent.

Opera Workshop [MUSIC-616R]

BYU > College of Fine Arts and Communications > Music > Course

Training and experience in operatic choral music and stage movement.

Hours: 1.0 Credit, 6.0 Lecture, 0.0 Lab
Prerequisites: Audition; instructor's consent.

Oratorio Literature for Solo Voice [MUSIC-511]

BYU > College of Fine Arts and Communications > Music > Course

History, repertoire, and performance practice of sacred works with a focus on works from the Baroque Era to Contemporary.

Hours: 2.0 Credit, 2.0 Lecture, 0.0 Lab
Prerequisites: Music 402A or equivalent.

Orchestra Literature 1 [MUSIC-508]

BYU > College of Fine Arts and Communications > Music > Course

Concentrated analytical study and application of orchestral literature of the baroque and classical eras.

Hours: 2.0 Credit, 2.0 Lecture, 0.0 Lab
Prerequisites: Instructor's consent.

Orchestra Literature 2 [MUSIC-509]

BYU > College of Fine Arts and Communications > Music > Course

Concentrated analytical study and application of orchestral literature of the romantic era and the 20th century.

Hours: 2.0 Credit, 2.0 Lecture, 0.0 Lab
Prerequisites: Instructor's consent.

Pedagogy [MUSIC-665]

BYU > College of Fine Arts and Communications > Music > Course

Advanced pedagogical studies.

Hours: 2.0 Credit, 2.0 Lecture, 1.0 Lab
Prerequisites: Completion of appropriate undergraduate pedagogy courses or equivalent.

Percussion Ensemble [MUSIC-645R]

BYU > College of Fine Arts and Communications > Music > Course

Hours: 1.0 Credit, 0.0 Lecture, 0.0 Lab

Performance Instruction [MUSIC-560R]

BYU > College of Fine Arts and Communications > Music > Course

Performance instruction for students not specializing in performance, and for performance students wishing to study secondary instruments.

Hours: 1.0-2.0 Credit, 1.0 Lecture, 0.0 Lab
Prerequisites: Graduate music student status.

Philharmonic Orchestra [MUSIC-638R]

BYU > College of Fine Arts and Communications > Music > Course

Hours: 1.0 Credit, 0.0 Lecture, 4.0 Lab

Philosophical and Aesthetic Foundations of Music Education [MUSIC-674]

BYU > College of Fine Arts and Communications > Music > Course

Questions related to teaching music in the public schools.

Hours: 2.0 Credit, 2.0 Lecture, 0.0 Lab

Psychology of Music [MUSIC-672]

BYU > College of Fine Arts and Communications > Music > Course

Psychoacoustical properties of musical phenomena and the neurological aspects of music perception and performance.

Hours: 2.0 Credit, 0.0 Lecture, 0.0 Lab

Recital [MUSIC-697B]

BYU > College of Fine Arts and Communications > Music > Course

Hours: 2.0 Credit, ARR Lecture, ARR Lab
Prerequisites: Concurrent enrollment with Music 660R is required for performance emphasis.

Researching the Recital [MUSIC-697A]

BYU > College of Fine Arts and Communications > Music > Course

Preparation of a paper related to music of graduate recital. Alternate topic possible with graduate committee's consent. Supervised by the student's committee chair or other appropriate faculty member.

Hours: 2.0 Credit, ARR Lecture, ARR Lab

Schenker Analysis [MUSIC-596]

BYU > College of Fine Arts and Communications > Music > Course

Schenker's system of tonal analysis.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Music 306, 395; or equivalents.

Score Analysis [MUSIC-595]

BYU > College of Fine Arts and Communications > Music > Course

Analysis of representative choral and instrumental works from the Renaissance through contemporary styles.

Hours: 2.0 Credit, 2.0 Lecture, 0.0 Lab

Score Preparation and Conducting: Instrumental [MUSIC-532R]

BYU > College of Fine Arts and Communications > Music > Course

Hours: 2.0 Credit, 2.0 Lecture, 0.0 Lab
Prerequisites: Instructor's consent.

Score Preparation and Direction: Jazz [MUSIC-534R]

BYU > College of Fine Arts and Communications > Music > Course

Hours: 2.0 Credit, 2.0 Lecture, 0.0 Lab

Sixteenth-Century Counterpoint [MUSIC-583]

BYU > College of Fine Arts and Communications > Music > Course

Strict modal counterpoint in sixteenth- century style (Palestrina); includes species, text setting, and motet.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: C- or higher in Music 294, 296, or equivalent.

Solo Recital [MUSIC-649]

BYU > College of Fine Arts and Communications > Music > Course

Hours: 2.0 Credit, ARR Lecture, 0.0 Lab
Prerequisites: Concurrent enrollment in Music 660R.

Steel Band [MUSIC-630R]

BYU > College of Fine Arts and Communications > Music > Course

Performing Pan music in the Calypso and Soco styles from Trinidad.

Hours: 1.0 Credit, 0.0 Lecture, 2.0 Lab
Prerequisites: Director's consent.

String Chamber Music [MUSIC-646R]

BYU > College of Fine Arts and Communications > Music > Course

Hours: 1.0 Credit, 0.0 Lecture, 0.0 Lab

Summer Music Workshops and Clinics [MUSIC-575R]

BYU > College of Fine Arts and Communications > Music > Course

Hours: 0.5-4.0 Credit, ARR Lecture, ARR Lab

Supervised Teaching [MUSIC-670]

BYU > College of Fine Arts and Communications > Music > Course

Supervised private and group instruction.

Hours: 2.0 Credit, 0.0 Lecture, 6.0 Lab
Prerequisites: Graduate music major status.

Symphonic Band [MUSIC-625R]

BYU > College of Fine Arts and Communications > Music > Course

Performs standard band literature. Audition required.

Hours: 1.0 Credit, 0.0 Lecture, 4.0 Lab
Prerequisites: Audition.

Symphony Orchestra [MUSIC-637R]

BYU > College of Fine Arts and Communications > Music > Course

Performs challenging literature from the standard orchestral repertoire. Collaborative concerts include the annual underclassmen concerto night and the biennial musical. 85-member ensemble performs approximately two times a semester. Audition required.

Hours: 1.0 Credit, 0.0 Lecture, 4.0 Lab
Prerequisites: Audition.

Synthesis [MUSIC-634R]

BYU > College of Fine Arts and Communications > Music > Course

Hours: 1.0 Credit, 0.0 Lecture, 4.0 Lab

Teaching Secondary General Music [MUSIC-676]

BYU > College of Fine Arts and Communications > Music > Course

Theories, methods, and practical applications for providing rich musical experiences for secondary students in non-performance music courses; including musical mapping and effective teaching techniques.

Hours: 2.0 Credit, 2.0 Lecture, 0.0 Lab

Theories of Music Learning and Motivation [MUSIC-675]

BYU > College of Fine Arts and Communications > Music > Course

Applications of psychology to teaching and learning music. Research paper required.

Hours: 2.0 Credit, 2.0 Lecture, 0.0 Lab

Topics in Music [MUSIC-680R]

BYU > College of Fine Arts and Communications > Music > Course

Hours: 1.0-3.0 Credit, 3.0 Lecture, 0.0 Lab

Topics in Music [MUSIC-580R]

BYU > College of Fine Arts and Communications > Music > Course

Hours: 0.5-3.0 Credit, Arr Lecture, Arr Lab
Prerequisites: Music 296 or equivalent.

Twentieth-Century Counterpoint [MUSIC-683]

BYU > College of Fine Arts and Communications > Music > Course

Counterpoint from the works of Schoenberg, Stravinsky, Crumb, Lutoslawski, and others.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Twentieth-Century Orchestration [MUSIC-581]

BYU > College of Fine Arts and Communications > Music > Course

New techniques for standard and new instruments; analysis and listening.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Music 481 or equivalent.

University Singers [MUSIC-615R]

BYU > College of Fine Arts and Communications > Music > Course

Hours: 1.0 Credit, 0.0 Lecture, 5.0 Lab

Wind Symphony [MUSIC-626R]

BYU > College of Fine Arts and Communications > Music > Course

Hours: 1.0 Credit, 0.0 Lecture, 4.0 Lab

Women's Chorus [MUSIC-613R]

BYU > College of Fine Arts and Communications > Music > Course

Draws on works from the vast repertoire for treble voices. Audition required.

Hours: 1.0 Credit, 0.0 Lecture, 5.0 Lab
Prerequisites: Audition and director's consent.

Woodwind Chamber Music [MUSIC-648R]

BYU > College of Fine Arts and Communications > Music > Course

Hours: 1.0 Credit, 0.0 Lecture, 0.0 Lab

Asplund, Christian T

BYU > College of Fine Arts and Communications > Music > Faculty

Professor
Music
DMA, University of Washington, 1998
Research Interest: Theory and Composition

Babidge, Darrell Gordon

Associate Professor
Music
Professional Degree, Manhattan School of Music, 2001
Research Interest: Vocal Performance

Belknap, Monte L

Associate Professor
Music
MM, University of Cincinnati, 1994
Research Interest: Violin Performance

Beus, Stephen Richard

Assistant Professor
Music
DMA, Stony Brook University, 2011
Research Interest: Piano Performance

Bigelow, Anny Claudine

Professor
Music
DMA, University of Maryland, 2002
Research Interest: String Performance and Pedagogy

Brandt, Robert David

Assistant Professor
Music
DM, Indiana University, 2010

Broomhead, Gordon Paul

Professor
Music
PhD, University of Washington, 1999
Research Interest: Music Education

Clayton, April D

Professor
Music
DMA, The Juilliard School of Music, 2001
Research Interest: Flute Performance

Coleman, Matthew P

Assistant Teaching Professor
Music
DMA, Arizona State University, 2012
Research Interest: Percussion Performance

Cook, R Don

Associate Professor
Music
DMA, University of Kansas, 1987
Research Interest: Organ Performance and Pedagogy

Crane, Richard A

Assistant Professor
Music
DMA, Michigan State University, 2005
Research Interest: Choral Conducting

Dunn, Robert E

Professor
Music
PhD, Northwestern University, 1994
Research Interest: Music Education

Giovannetti, Geralyn A

Professor
Music
DMA, University of Michigan, 1990
Research Interest: Oboe and Woodwind Performance and Pedagogy

Grimshaw, Jeremy N

Associate Professor
Music
PhD, Eastman School of Music, 2005
Research Interest: Musicology

Hall, Rosalind Beth

Associate Professor
Music
MM, Brigham Young University, 1992
Research Interest: Choral Conducting

Hansen, H Eric

Professor
Music
MM, Peabody Conservatory of Johns Hopkins University, 1989
Research Interest: Performance

Harker, Brian Cameron

Professor
Music
PhD, Columbia University, 1997
Research Interest: Musicology

Hicks, Michael D

Professor
Music
DMA, University of Illinois, 1984
Research Interest: Theory and Composition

Hinckley, Jaren Smith

Professor
Music
DM, Florida State University, 2002
Research Interest: Clarinet Performance

Holden, Scott L

Professor
Music
DMA, Manhattan School of Music, 2002
Research Interest: Piano Performance and Pedagogy

Howard, Luke Benjamin

Associate Professor
Music
PhD, University of Michigan, 1997
Research Interest: Musicology

Johnson, Steve Philip

Professor
Music
PhD, University of California, Los Angeles, 1989
Research Interest: Musicology

Jones, Stephen Morrill

Professor
Music
DMA, University of Cincinnati, 1989
Research Interest: Theory and Composition

Katseanes, Kory Lynn

Professor
Music
MM, University of Utah, 1979
Research Interest: Orchestral Conducting

Kesler, Michelle La Ree

Assistant Professor
Music
DMA, Arizona State University, 2014
Research Interest: Cello Performance

Kimball, Wilford W

Professor
Music
DMA, Arizona State University, 2001
Research Interest: Trombone and Brass Performance and Pedagogy

Lindeman, Stephen David

Professor
Music
PhD, Rutgers University, 1995
Research Interest: Music Theory

Lowe, Laurence Michael

Professor
Music
MM, University of Rochester, 1981
Research Interest: Horn and Brass Performance and Pedagogy

May, Brittany Michelle

Assistant Professor
Music
PhD, University of Utah, 2015
Research Interest: Music Education

Peterson, Donald L

Professor
Music
DMA, Arizona State University, 1986
Research Interest: Instrumental Conducting

Pierce, Jared Alexander

Assistant Professor
Music
DMA, University of Utah
Research Interest: Piano Performance

Reich, Diane Thueson

Associate Professor
Music
DM, Indiana University, 2003
Research Interest: Vocal Performance and Pedagogy

Ricks, Steven Leon

Professor
Music
PhD, University of Utah, 2001
Research Interest: Theory and Composition

Saville, Kirt Raymond

Professor
Music
EdD, Utah State University, 1991
Research Interest: Music Education

Smith, Charles Raymond

Professor
Music
DM, Indiana University, 1982
Research Interest: Saxophone and Woodwind Performance and Pedagogy

Smith, Christian B

Professor
Music
DMA, University of Michigan, 2006
Research Interest: Bassoon Performance Instruction

Thornock, Neil S

BYU > College of Fine Arts and Communications > Music > Faculty

Associate Professor
Music
DM, Indiana University, 2006
Research Interest: Theory and Composition

Tsugawa, Samuel

BYU > College of Fine Arts and Communications > Music > Faculty

Associate Professor
Music
DMA, Arizona State University, 2009
Research Interest: Music Education

Woods, Alexander George

BYU > College of Fine Arts and Communications > Music > Faculty

Associate Professor
Music
MM, Yale University, 2008
Research Interest: Violin Performance

Yorgason, Brent T

BYU > College of Fine Arts and Communications > Music > Faculty

Associate Professor
Music
PhD, Indiana University, 2009
Research Interest: Music Theory

Neuroscience Center

BYU > College of Family, Home, and Social Sciences > Department

Address

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801-422-1218
neuroscience@byu.edu

Programs

Neuroscience [285771]
Neuroscience [285761]

Neuroscience is the study of the development and function of the central nervous system and its connection to influencing/regulating behavior. The study of neuroscience examines neuroanatomy, physiology of nervous system, biochemistry, genetics, neuropharmacology, neuroimaging, systems and behavioral neuroscience, developmental neuroscience, social neuroscience, cognition, bioengineering, computational neuroscience, and neural dysfunction and disease.

Graduate programs within the Neuroscience Center offer research training and classroom instruction in a wide range of areas pertaining to neuroscience. Areas of research include neuroendocrinology, reproduction, central nervous system development, exercise physiology, glucose metabolism, membrane transport, channel structure, synaptic vesicle recycling, blood pressure control, tissue engineering, memory, stress and coping, aging, neuroimaging, neuropsychology, development, emotions, psychiatric disorders, Alzheimer's Disease, dementia, amnesia, language, vision, sleep, sensory development, brain behavior relationships, cognition, attachment, robotic rehabilitation, movement, electroencephalography, psychophysiology, traumatic brain injury and psychiatric disorders.

In addition to working with neuroscience faculty, graduate students have the option to engage in cross disciplinary research with faculty members in Neuroscience.

The Neuroscience Center offers two graduate degrees: Neuroscience-MS and Neuroscience-PhD.

Students working toward a master's degree generally complete all requirements within two years. PhD students generally complete all requirements in four to five years.

Director: Ramona O. Hopkins
Graduate Coordinator: Scott Steffensen

Faculty

Michael D. Brown
Teaching Professor, Physiology and Developmental Biology
PhD, Colorado State University, 1999
Regulation of Axon and Dendrite Extension and Pathfinding During Nervous System Development

David D. Busath
Professor, **Physiology and Developmental BiologyMD, University of Utah, 1978**
Electrophysiology; Molecular Modeling: Molecular Biophysics

Steven Charles
Assistant Professor, Mechanical Engineering
PhD, Harvard-Massachusetts Institute of Technology, 2008
Wrist Movement; Robotic Rehabilitation; Mechanical and Medical Engineering

Derin J. Cobia
Assistant Professor, Psychology
PhD, St Louis University, 2008
Neuropsychology; Neuroimaging; Psychosis; Dementia

Alonzo Cook
Associate Professor, Chemical Engineering
PhD, Massachusetts Institute of Technology, 1996
Tissue Engineering and Medical Devices; Regenerative Medicine

Jeff G. Edwards
Associate Professor, **Physiology and Developmental Biology**
PhD, University of Utah, 2003
Synapse Activity and Structure

Shawn D. Gale
Associate Professor
PhD, Brigham Young University, 1994
Neuropsychology; Brain-Behavior Relationship; Neuroimaging

Dawson W. Hedges
Professor, Psychology
MD, University of Utah, 1998
Psychiatry; Neuroscience; Electroencephalography

J. Dee Higley
Professor, Psychology
PhD, University of Wisconsin, 1985
Developmental Psychopathology; Psychobiology; Primate Behavior

Julianne Holt-Lunstad
Professor, Psychology
PhD, University of Utah, 2001
Social Relationship; Stress and Coping; Psychoneuroendocrinology; Psychophysiology; Health Psychology

Ramona O. Hopkins
Professor, Psychology
PhD, University of Utah, 1996
Neuroimaging; Brain Behavior Relationships; Cognitive Outcomes of Critical Illness, Hypoxia/Ischemia; Family Stress due to Illness

John "Keoni" Kauwe
Associate Professor, Biology
PhD, Washington University, 2007
Alzheimer's disease; Identification and Functional Characterization of Disease Associated Genetic Variation

Daniel B. Kay
Assistant Professor, Psychology
PhD, University of Florida, 2008
Sleep; Cognition; Mood; Aging

C. Brock Kirwan
Associate Professor, Psychology
PhD, Johns Hopkins University, 2006
Memory; Amnesia; Functional Neuroimaging

Michael J. Larson
Associate Professor, Psychology
PhD, University of Florida, 2008
Neuropsychology; Cognitive Neuroscience; Neuroimaging; Cognitive Changes Following Traumatic Brain Injury; Cognitive Processes in Psychopathology such as Obsessive-Compulsive Disorder

Steven G. Luke
Assistant Professor, Psychology
PhD, University of Illinois at Urbana-Champaign, 2011
Language Processing; Vision; Reading: Eye Movements

Rebecca A. Lundwall
Assistant Professor, Psychology
PhD, Rice University, 2013
Attentional Development; Genetics: Gene-by-Environment Interactions; Cognitive Neuroscience

Rebekka Matheson
Teaching Assistant Professor, Psychology
MD, University of Rochester, 2013
Neuroanatomy of Reward Systems, Addiction Medicine; Neuropsychiatry; Biopsychosocial Approach in Medicine; Scientific Pedagogy

David McPherson
PhD, University of Washington, 1972
Professor, Audiology & Speech-Language Pathology
Even Related Potentials: Language and Cognitive Function and in Auditory Processing and Function; Neurophysiological Foundations of Sensory Development

Jared Nielsen
Assistant Professor, Psychology
PhD, University of Utah, 2013
Brain Organization and How Neurological and Psychiatric Illness Disrupt Brain Organization

Chris L. Porter
Associate Professor, School of Family Life
PhD, Purdue University-West Lafayette, 1996
Child Development; Socialization: Behavioral and Psychophysiological Components of Temperament and Emotionality; EEG and ERP, Childhood Attachment; Emotional, Behavioral and Biological Reactivity

Michael D. South
Associate Professor, Psychology
PhD, University of Utah, 2005
Autism Spectrum Disorders: Social Emotion/Motivation; Functional Neuroimaging; Restricted/Repetitive Behaviors and Interests; Diagnostic Issues

Michael Robert Stark
Professor, **Physiology and Developmental Biology**
PhD, University of California, Irvine, 1998
Developmental Biology

Scott C. Steffensen
Professor, Psychology

Sterling N. Sudweeks
Associate Professor, **Physiology and Developmental Biology**
PhD, University of Utah, 1997
Pharmacology of the Nervous System; Ion Channels

Arminda Suli
Assistant Professor, **Physiology and Developmental Biology**
PhD, University of Utah, 1999
Neural Circuitry Development

Dixon John Woodbury
Professor, **Physiology and Developmental Biology**
PhD, University of California, Irvine, 1986
Molecular Mechanisms of Exocytosis; Neuroscience of Transmitter Release; Electrophysiology of Ion Channels

Resources & Opportunity

Program resources include the laboratories and equipment of Center faculty. An electron microscope laboratory, with both transmission and scanning microscopes, a DNA Sequencing Center, Cancer Research Center, and the MRI Research Facility.

Financial Assistance

The Neuroscience Center offers the following financial aid: teaching assistantships, research assistantships, and tuition awards.

Neuroscience (PhD) [285771]

Course work and research that emphasize the integration of molecular biology, developmental biology, biophysics, neuroanatomy, neurophysiology, neuroendocrinology, neuroimmunology, cognition, and behavioral neuroscience is offered through this PhD degree program. Students are required to develop a strong background in the principles of neuroscience and develop the intellectual background and technical expertise necessary for successful research projects in their area of specialization. Publication of the research in peer-reviewed journals is expected but not required.

Requirements for Degree

> **Credit hours: 56 hours, including 18 hours of dissertation (Neuro 799R).**
> **Students who have earned a master's degree must complete at least 36 semester hours of additional graduate work at BYU beyond the master's degree.**

Required courses:

- Bio 503 Research Orientation 1.0
- PDBio 570 Responsible Research Conduct 1.0
- Neuro 601 Cellular Neuroscience 3.0
- Neuro 602 Behavioral Neurobiology 3.0
- Neuro 649R Laboratory Research 2.0
- Neuro 689R Practicum in Neuroscience Teaching or Research 2.0
- Neuro 694R Research Presentation 4.0
- Neuro 696R Neuroscience Graduate Seminar 2.0 (0.5 credits for 4 semesters)
- Stat 511 Statistical Methods for Research 1 or equivalent 3.0
- Neuro 799R Doctoral Dissertation 18.0
- One semester (2 credits) of Neuro 649R must be performed in a laboratory different than the laboratory of the student's graduate committee chair.
- A seminar must be presented each year (Neuro 694R).
- A professional development requirement must be met (Neuro 689R).

Dissertation: standard university dissertation format or journal publication format.
Examinations: (A) comprehensive written and oral examination; (B) defense of dissertation.

Required Tests

GRE (score of 1070)

Resume required

Document summarizing interest level, likely fit, and desire to conduct graduate research with at least 5 specific faculty members in the program.

Neuroscience (MS) [285761]

A sound understanding of current concepts in neuroscience is the purpose of this MS degree program. The thesis research project teaches the fundamentals of scientific inquiry and trains students in state-of-the-art research techniques. Submission of the thesis to a peer-reviewed journal is encouraged but not required.

Requirements for Degree

Credit hours (30): minimum 24 approved course work hours plus 6 thesis hours (Neuro 699R).

Required Courses:

- Bio 503 Research Orientation 1.0
- PDBio 570 Responsibile Research Conduct 1.0
- Neuro 601 Cellular Neuroscience 3.0
- Neuro 602 Behavioral Neurobiology 3.0
- Neuro 694R Research Presentation 1.0
- Neuro 696R Neuroscience Graduate Seminar 1.0 (0.5 credits for 2 semesters)
- Neuro 699R Masters Thesis 6.0
- Stat 511 Statistical Methods for Research 1 or equivalent 3.0
- A seminar must be presented each year (Neuro 694R)
- Thesis: standard university thesis format or journal publication format.
- Examinations: (A) course work oral examination; (B) oral defense of thesis.

Required Tests

GRE, MCAT, or DAT

Additional Requirements

Resume required

Document summarizing interest level, likely fit, and desire to conduct graduate research with at least 5 specific faculty members in the program.

Behavioral Neurobiology [NEURO-602]

BYU > College of Family, Home, and Social Sciences > Neuroscience Center > Course

Graduate-level principles and contemporary developments in neural science. Structure-function relationships and integration anatomic, systems, behavioral, cognitive, and/or clinical neuroscience.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Neuro 380, Neuro 480, Neuro 481; or equivalents.

Cellular Neuroscience [NEURO-601]

BYU > College of Family, Home, and Social Sciences > Neuroscience Center > Course

Graduate-level principles and contemporary developments in neural science. Structure-function relationships and integration of biophysical, molecular, and/or cellular neuroscience.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Neuro 380, 480, 481; or equivalents.

Doctoral Dissertation [NEURO-799R]

BYU > College of Family, Home, and Social Sciences > Neuroscience Center > Course

Hours: 1.0-18.0 Credit, 0.0 Lecture, 0.0 Lab

Laboratory Research [NEURO-649R]

BYU > College of Family, Home, and Social Sciences > Neuroscience Center > Course

Laboratory research for neuroscience graduate students.

Hours: 1.0-6.0 Credit, Arr Lecture, Arr Lab
Prerequisites: Instructor's consent.

Master's Thesis [NEURO-699R]

BYU > College of Family, Home, and Social Sciences > Neuroscience Center > Course

Hours: 1.0-6.0 Credit, 0.0 Lecture, 0.0 Lab

Neuroscience Graduate Seminar [NEURO-696R]

BYU > College of Family, Home, and Social Sciences > Neuroscience Center > Course

Seminar series organized by the Neuroscience Center and the Department of Physiology and Developmental Biology. Speakers are enlisted from both inside and outside the university.

Hours: 0.5-1.0 Credit, 1.0 Lecture, 0.0 Lab

Practicum in Neuroscience Teaching or Research [NEURO-689R]

BYU > College of Family, Home, and Social Sciences > Neuroscience Center > Course

Curricula, principles, concepts, and experiences in effective neuroscience teaching or methods of effective research and grantsmanship in neuroscience.

Hours: 0.5-3.0 Credit, Arr Lecture, Arr Lab

Research Presentation [NEURO-694R]

BYU > College of Family, Home, and Social Sciences > Neuroscience Center > Course

Oral presentation of graduate research projects (introduction, methods, hypothesis, results, and conclusion).

Hours: 0.5-1.0 Credit, 1.0 Lecture, 0.0 Lab

Matheson, Rebekka

BYU > College of Family, Home, and Social Sciences > Neuroscience Center > Faculty

Assistant Teaching Professor
Neuroscience
MD, University of Rochester, 2013

Department of Nursing

BYU > College of Nursing > Department

Address

Nursing
400 KMBL
801-422-4142
nursing_graduate@byu.edu

Programs

Nursing [610167]

The graduate program, administered by the College of Nursing, prepares advanced practice nurses to: (1) Integrates scientific findings from nursing, biopsychosocial fields, genetics, public health, quality improvement, and organizational sciences for continual improvement of patient care across diverse settings; (2) Utilizes organizational and systems leadership to promote high quality and safe patient care; (3) Applies methods, tools, performance measures, and standards related to quality improvement and safety within organizations; (4) Participates as a change agent in translating and integrating scholarship and evidence into practice settings to optimize quality patient outcomes; (5) Utilizes patient-center and communication technologies to integrate, coordinate, deliver and enhance health care; (6) Intervenes at the system level through the policy development process and employing advocacy strategies to influence health and health care; (7) Participates, consults, communicates and collaborates as a member and leader of interprofessional teams to manage and coordinate care; (8) Applies and integrates broad organizational, client-centered, culturally appropriate concepts in planning, delivery, managing, and evaluating evidence-based clinical prevention and population care and services to individuals, families and aggregates/identified populations; (9) Provides competent evidence based advanced-practice nursing care as a family nurse practitioner to diverse individuals, families, and groups and manages health and illness across the continuum of care and across the lifespan; and (10) Provides care in a compassionate manner that respects, protects, and enhances spiritual integrity, human dignity, cultural diversity, and demonstrates the Healer's art.

The College of Nursing is a member of the Council of Baccalaureate and Higher Degree Programs of the National League for Nursing, the American Association of Colleges of Nursing, and the Western Council on Higher Education in Nursing. The program is accredited by the Commission on Collegiate Nursing Education (CCNE) and is also approved by the Utah State Board of Nursing.

The College of Nursing offers one degree in nursing, the Master of Science Family Nurse Practitioner degree.

Approximately thirty students are enrolled in the College of Nursing's graduate program. The program can be completed in approximately two to three years, although five years are allowed.

Dean: Patty Ravert Graduate Coordinator: Jane Lassetter

Resources & Opportunity

Research Center. The college research center, available to faculty and graduate students, is equipped with computer stations and software supporting statistical quantitative data analyses and qualitative data management. The center has graphics capability and assists in the preparation of research reports, articles, and presentations.

Facilities. A graduate study room is available on the fourth floor of the Spencer W. Kimball Tower. The study room is equipped with computers and a printer. Four fully equipped physical assessment stations are found in the Nursing Learning Center. Clinical agencies in urban and rural Utah are settings for advanced practice nursing. Many of these institutions maintain continual clinical research programs and innovative management strategies appropriate for graduate students. Nurse practitioner clinics and rural practitioner sites also offer a challenging experience in becoming an independent practitioner.

Financial Assistance

The College of Nursing actively seeks financial resources to assist students. Governmental funds are available, and RNs can usually find local part-time work. The university also has limited funds available. Students who need financial aid should contact the College of Nursing graduate coordinator. Also you can contact the University Financial Aids Office for financing options. College of Nursing research and teaching assistantships are also available.

Assistantships. Students must be registered and able to meet the skill and credit-hour requirements for the available teaching and research assistantships. For more information, students should meet with the college graduate coordinator.

Scholarships. Scholarships, awarded on the basis of GPA and need, are available to degree-seeking master's students. Recipients must take at least 2 credit hours per semester to maintain the scholarship. They must also maintain at least a 3.0 GPA. See the college graduate coordinator or the graduate secretary for more information.

Nursing (MS) [610167]

The master's of science degree program emphasizes clinical expertise and includes nursing theories and concepts as well as extensive clinical experience. Practice based on the best evidence is an important component of the program, and students are required to write a thesis, develop an innovative clinical project, or complete a scholarly evidence-based paper of a relevant clinical problem.

Requirements for Degree.

> Credit hours:
> 60-63 (depending on culminating writing experience selection): minimum 54-57 course work hours plus 6 thesis (Nurs 699R) or project (Nurs 698R) hours; or a scholarly evidence-based paper (Nurs 623, 631).
> Required courses:
> Nurs 555, 600, 601, 603, 605, 606, 607, 608, 609, 619, 621, 622, 624, 625, 626, 628, 630, 632, 635R; 698R or 699R; or 623 and 631.
> Electives: determined in consultation with graduate committee.
> Thesis/Project or a scholarly evidence-based paper.
> Examination: oral defense of thesis or project.

Required Test

GRE - All scores (Verbal, Quantitative, and Writing) must be submitted to the University before the Dec. 1st deadline. Test scores usually take 2-3 weeks to be processed and submitted.

Additional Requirements

1. Completion of a baccalaureate degree in nursing from a school with national nursing professional accreditation (e.g. CCNE, ACEN, CNEA).
2. Current R.N. licensure in Utah in good standing.
3. Completion of a basic undergraduate statistics course.
4. Completion of a college level pathophysiology course.
5. A minimum GPA of 3.0 or better. The GPA will be calculated using the cumulative GPA of the applicant's undergraduate program.
6. Three letters of recommendation from employers and former teachers. (Preference is given to current employers).
7. Statement of applicant's purposes and goals for graduate education.
8. Acceptance by the Graduate School of the University.
9. Completion of an impromptu writing experience.

After the application deadline, select applicants will be invited for a personal interview.

Acceptance into the graduate Master's Family Nurse Practitioner Program is highly competitive and with a limited number of openings each year. Approximately 15 students are admitted each year. All students who meet the minimum requirements will be considered but due to limited enrollment acceptance is not guaranteed. There may be an initial screening of applicants resulting in some students not being interviewed.

Applicants are evaluated on a variety of criteria using a point system that measures the level of performance on criteria such as GPA, GRE, letters of recommendation, interview, and the impromptu writing experience. Also, the professional judgment of the admissions committee will be used in selecting the candidates to be accepted into the Family Nurse Practitioner Program.

International Student Information

For an international student to be admitted, the following criteria needs to be met in order to qualify for the program in addition to the standard requirements:

1. Have an RN License in the State of Utah in good standing (Need to pass the NCLEX test and can apply for a Utah nursing license at http://www.dopl.utah.gov/).
2. Complete a credential evaluation that provides a transcript and verification of the equivalent of a Bachelor's Degree in Nursing (i.e. Commission of Graduates of Foreign Nursing Schools {CGFNS www.cgfns.org}).
3. English as Second Language (ELS) students need to take an English Proficiency Test (such as TOEFL or E3PT). Minimum score requirements are listed on the Graduate Studies website https://gradstudies.byu.edu/page/english-proficiency.

Advanced Health Assessment Across the Life Span [NURS-621]

BYU > College of Nursing > Department of Nursing > Course

Development of physical assessment techniques across the life span.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Advanced Pathophysiology and Genetics/Genomics [NURS-619]

BYU > College of Nursing > Department of Nursing > Course

The effects of genetics/genomics, cellular physiology, inflammatory and immune response on disease states.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Advanced Practice Nursing Theories, Roles, Issues, Ethics, and Interprofessional Collaboration [NURS-606]

BYU > College of Nursing > Department of Nursing > Course

Professional theories, roles, issues, ethics, and the use of interprofessional collaboration for advanced-practice nurses.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Applied Pharmacology in Advanced Practice [NURS-603]

BYU > College of Nursing > Department of Nursing > Course

Experience in prescribing and managing drug therapy in patients with a variety of conditions and across the life span.

Hours: 1.0 Credit, 1.0 Lecture, 0.0 Lab

Clinical Practicum 1 [NURS-624]

BYU > College of Nursing > Department of Nursing > Course

Clinical experience in health promotion and disease prevention; diagnosing and managing adults with common psychosocial and physiological alterations and pediatric and adolescent patients.

Hours: 2.0 Credit, 0.0 Lecture, 2.0 Lab
Prerequisites: Concurrent with 622.

Clinical Practicum 2 [NURS-626]

BYU > College of Nursing > Department of Nursing > Course

Clinical experience in health promotion and disease prevention; diagnosing and managing adults with chronic psychosocial and physiological alterations and geriatric patients.

Hours: 2.0 Credit, 0.0 Lecture, 2.0 Lab

Clinical Practicum 3 [NURS-628]

BYU > College of Nursing > Department of Nursing > Course

Clinical experience in health promotion and disease prevention; diagnosing and managing patients with acute psychosocial and physiological alterations.

Hours: 2.0 Credit, 0.0 Lecture, 2.0 Lab
Prerequisites: Nurs 555, 600, 601, 606, 619, 621, 622, 623, 624, 625, 626, 629, 630; concurrent enrollment in Nurs 608, 632.

Diagnosis and Management of Acute and Complex Disorders Across the Life Span [NURS-632]

BYU > College of Nursing > Department of Nursing > Course

Health promotion and disease prevention; diagnosing and managing chronic psychosocial and physiological alterations in adult and geriatric patients.

Hours: 4.0 Credit, 4.0 Lecture, 0.0 Lab

Diagnosis and Management of Adult Common Disorders [NURS-622]

BYU > College of Nursing > Department of Nursing > Course

Health promotion and disease prevention; diagnosing and managing common psychosocial and physiological alterations in adult patients.

Hours: 4.0 Credit, 8.0 Lecture, 0.0 Lab
Prerequisites: Concurrent with 624.

Diagnosis and Management of Chronic Adult and Geriatric Disorders [NURS-630]

BYU > College of Nursing > Department of Nursing > Course

Health promotion and disease prevention; diagnosing and managing chronic psychosocial and physiological alterations in adult and geriatric patients.

Hours: 4.0 Credit, 8.0 Lecture, 0.0 Lab

Diagnosis and Management of Pediatric and Adolescent Disorders and Family Health [NURS-625]

BYU > College of Nursing > Department of Nursing > Course

Health promotion and disease prevention; diagnosing and managing psychosocial and physiological alterations in pediatric and adolescent patients and family health.

Hours: 3.0 Credit, 6.0 Lecture, 0.0 Lab

Family Nurse Practitioner Internship [NURS-635R]

BYU > College of Nursing > Department of Nursing > Course

Internship as a family nurse practitioner.

Hours: 1.0-8.0 Credit, ARR Lecture, ARR Lab

Graduate Nursing Internship [NURS-599R]

BYU > College of Nursing > Department of Nursing > Course

Internship experiences provide international students opportunities to reinforce principles learned during their graduate coursework and practice skills acquired during undergraduate education. Internship students are primarily responsible for how much they learn. Students will engage in the work of a registered nursing in Utah and reflect on the differences and similarities between practice as a registered nurse and their future practice as a family nurse practitioner.

Hours: 1.0-4.0 Credit, ARR Lecture, ARR Lab

Health Care Policy and Finance [NURS-608]

BYU > College of Nursing > Department of Nursing > Course

Knowledge and skills influencing health care policy; utilizing fiscal accountability to provide quality cost-effective care.

Hours: 2.0 Credit, 2.0 Lecture, 0.0 Lab

Independent Study [NURS-590R]

BYU > College of Nursing > Department of Nursing > Course

Individualized study.

Hours: 0.5-4.0 Credit, ARR Lecture, ARR Lab
Prerequisites: Instructor's consent.

Informatics and Health Care Technologies [NURS-607]

BYU > College of Nursing > Department of Nursing > Course

Use of patient care and other technologies to deliver, integrate, coordinate, and improve outcomes of care.

Hours: 2.0 Credit, 2.0 Lecture, 0.0 Lab

Interprofessional Education for the Health Professions [NURS-505]

BYU > College of Nursing > Department of Nursing > Course

The acquisition of knowledge of interprofessional education (IPE) and teamwork in the health professions. IPE will be explored from the perspectives of roles and responsibilities for collaborative practice. Values and ethics for interprofessional collaboration. Issues and complexities surrounding patient safety, patient advocacy, teams, teamwork and communication particularly how to deal with conflict. Quality Improvement strategies, patient-centered care, evidenced-based collaborative practice and leadership impact on the individual, family, health care system, and society. Course participants will individually determine their personal perspectives about teamwork and interprofessional education.

Hours: 1.0 Credit, 1.0 Lecture, 0.0 Lab

Master's Thesis [NURS-699R]

BYU > College of Nursing > Department of Nursing > Course

Hours: 0.5-6.0 Credit, ARR Lecture, ARR Lab
Prerequisites: Committee's consent.

Nursing Science 1: Evidence Based Practice [NURS-600]

BYU > College of Nursing > Department of Nursing > Course

Developing skills and knowledge in selecting and synthesizing the best research evidence to provide quality health care.

Hours: 2.0 Credit, 2.0 Lecture, 0.0 Lab
Prerequisites: Concurrent enrollment in Nurs 627.

Nursing Science 2: Translating and Integrating Scholarship and Evidence into Practice [NURS-601]

BYU > College of Nursing > Department of Nursing > Course

Developing skills and knowledge in systematically appraising and translating the best research and evidence to provide quality health care.

Hours: 2.0 Credit, 2.0 Lecture, 0.0 Lab

Organizational and Systems Leadership [NURS-605]

BYU > College of Nursing > Department of Nursing > Course

Utilize principles of organizational and systems leadership to promote high quality and safe patient care.

Hours: 2.0 Credit, 2.0 Lecture, 0.0 Lab

Pharmacology in Advanced Practice [NURS-555]

BYU > College of Nursing > Department of Nursing > Course

Principles of pharmacology and drug therapy for advanced practice nurses.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Procedures and Diagnostics for the Advanced Practice Nurse [NURS-627]

BYU > College of Nursing > Department of Nursing > Course

Developing skills in performing procedures and diagnostics used by advanced practice nurses.

Hours: 2.0 Credit, 0.0 Lecture, 4.0 Lab

Project [NURS-698R]

BYU > College of Nursing > Department of Nursing > Course

Master's project.

Hours: 0.5-6.0 Credit, ARR Lecture, ARR Lab
Prerequisites: Committee's consent.

Quality Improvement and Safety [NURS-609]

BYU > College of Nursing > Department of Nursing > Course

Utilize methods, tools, performance measures, culture of safety principles, and standards to ensure quality improvement and safety of patient care.

Hours: 2.0 Credit, 2.0 Lecture, 0.0 Lab

Scholarly Writing 1: Introduction and Methods [NURS-623]

BYU > College of Nursing > Department of Nursing > Course

Mentored experience in organizing and writing an introduction and a methods section, including synthesis of content; a logical flow of ideas; economy of expression, precision, and clarity; and meticulous attention to format details.

Hours: 2.0 Credit, 2.0 Lecture, 0.0 Lab

Scholarly Writing 2: Results and Discussion [NURS-631]

Mentored experience in organizing and writing results and discussion sections, including synthesis of content; a logical flow of ideas; economy of expression, precision, and clarity; and meticulous attention to format details.

Hours: 1.0 Credit, 1.0 Lecture, 0.0 Lab

Beckstrand, Renea Lindstrom

Professor
Nursing
PhD, University of Utah, 2001
Research Interest: Acute and critical care in adults

Himes, Deborah O

Assistant Professor
Nursing
PhD, University of Utah, 2014
Research Interest: Precision medicine - care based on genetic information

Lassetter, Jane H

Professor
Nursing
PhD, Oregon Health and Science University, 2008
Research Interest: Family-focused healthy lifestyles and obesity prevention

Luthy, Karlen E

Associate Professor
Nursing
DNP, Rush University, 2008
Research Interest: Immunization compliance

Lyman, Bret R

Assistant Professor
Nursing
PhD, University of Northern Colorado, 2010
Research Interest: Organizational learning in health systems

Macintosh, Janelle LaNae Bassett

Assistant Professor
Nursing
PhD, University of Utah, 2010
Research Interest: Maternal identity in vulnerable populations and immunization compliance

Merrill, Katreena C

BYU > College of Nursing > Department of Nursing > Faculty

Associate Professor
Nursing
PhD, University of Utah, 2011
Research Interest: Quality, patient safety and nursing leadership in acute care settings

Peterson, Neil Edward

BYU > College of Nursing > Department of Nursing > Faculty

Assistant Professor
Nursing
PhD, University of Virginia, 2014
Research Interest: Measurement, assessment, and intervention of sedentary behavior, physical activity, and healthy lifestyles across the lifespan

Ravert, Patricia Kay

BYU > College of Nursing > Department of Nursing > Faculty

Professor
Nursing
PhD, University of Utah, 2004
Research Interest: Educational interventions; Use of human simulations

Tesseyman, Sheri Lee P

BYU > College of Nursing > Department of Nursing > Faculty

Assistant Professor
Nursing
PhD, University of Manchester, England, 2014
Research Interest: Nursing theory and nursing history

Valentine, Julie Lyn

BYU > College of Nursing > Department of Nursing > Faculty

Assistant Professor
Nursing
PhD, Duquesne University, 2016
Research Interest: Sexual assault, interpersonal violence, violence against women, and criminal justice system response to sexual violence

Department of Nutrition, Dietetics, and Food Science

BYU > College of Life Sciences > Department

Address

Nutrition, Dietetics, and Food Science
S-227 ESC
801-422-3349
susan_fullmer@byu.edu

Programs

Food Science [284361]

Nutritional Science and Dietetics [284367]

Food Science is the multidisciplinary study of food, utilizing biology, chemistry, nutrition, engineering, and other sciences. Nutritional Science examines the effects of food consumption on the metabolism, health, and disease resistance in humans. Dietetics is the application of food and nutrition principles in healthcare and food service settings. Programs in both disciplines offer rigorous classroom instruction combined with challenging, original research. Small faculty-to-student ratios permit intense, meaningful mentoring by faculty advisors.

The Department of Nutrition, Dietetics, and Food Science offers two graduate degrees: an MS in Food Science and an MS in Nutritional Science and Dietetics (two tracks: Nutrition Science and Dietetics). Usual completion time is two years.

Fax: (801) 422-0258

Chair: Merrill Christensen Graduate Coordinator: Susan Fullmer

Resources & Opportunity

Pilot Plant. The Pilot Plant is used to conduct research dealing with food products, using pilot-scale equipment.

Sensory Laboratory. The sensory laboratory is a modern taste panel facility used to train students in sensory testing. Panelists register impressions of samples on computerized questionnaires in an isolated booth equipped with aroma and lighting control. Computerized analysis rapidly transforms data into easily interpreted results.

Quality Assurance Laboratory. The quality assurance laboratory performs quality assurance tests for The Church of Jesus Christ of Latter-day Saints Welfare Services. This research grant provides on-the-job-training, practical experience, and the opportunity to receive compensation for the time spent in learning.

Nutrition Assessment Laboratory. The nutrition assessment lab houses a duel energy x-ray absorption scanner (DXA) to measure body composition and bone density, an indirect calorimeter to measure resting metabolic rate, infant and adult anthropometric equipment, several pieces of equipment to perform basic biochemical assays (glucose, hemoglobin, lipid profile, urine analysis), and computer carousels for qualitative research.

Dietetic Internship. The Brigham Young University Dietetic Internship is accredited by the Accreditation Council for Education in Nutrition and Dietetics (ACEND) of The Academy of Nutrition and Dietetics, 120 South Riverside Plaza, Suite 2000, Chicago, IL 60606-6995, (312) 899-4876. The ten-month dietetic internship (DI) meets the competencies and learning outcomes requirements established by ACEND for entry-level dietitians.

See the department Web site for graduate faculty research interests and ongoing research projects.

Opportunities. Depending on the research project, a student might learn to do some of the following methods and instrumentation: chromatography (HPLD, GC-MS, headspace analysis), nitrogen analysis, mitochondria respiration assays, animal husbandry, pancreatic islet isolation, live cell imaging, histology, immunofluorescence, molecular biology techniques (proteomics, genomics, bioinformatics, data mining, metabolic studies, real-time PCR, and Western blots), DXA, indirect calorimetry, nutritional assessment and qualitative research methods.

Financial Assistance

Graduate students may be supported as department teaching assistants or research assistants. Students may also be supported by external research funds (grants, contracts) awarded to their advisors. Graduate students are encouraged to apply for scholarships, grants, fellowships, assistantships, and other awards made by the department, college, and university and by external funding agencies.

Food Science (MS) [284361]

The MS program in food science prepares students to work at an advanced level in the food industry or to pursue a doctoral degree through in-depth study of the chemistry of food component functionality, the microbiology of product manufacture and preservation, and the physical principles involved in processes. Students become proficient at designing and conducting research and development projects and communicating the results in a manner consistent with the best professionalism in the discipline.

Requirements for Degree.

Credit hours (30): minimum 24 course work hours plus 6 thesis hours (NDFS 699R).
Required courses: NDFS 652, 654, 656, 691R, 699R; Stat 511.
Minor (optional): selected with approval of faculty advisor.

Examinations: (1) oral examination on course work; and (2) defense of thesis.
Thesis: standard university format or journal publication format.

Required Tests

GRE preferred; MCAT, GMAT, DAT, LSAT

Additional Requirements

- Correct completion of BYU Graduate Studies application, including letters of recommendation

- Completion of the Graduate Record Examination (GRE), or,

- Completion of IELTS or TOEFL if non-English speaking

Nutritional Science and Dietetics (MS) [284367]

The MS program in Nutritional Science and Dietetics offers two tracks. The nutritional science track is designed to prepare graduate students for doctoral programs and professional school (medicine, podiatry, physician's assistant, dental). Graduates are also employed in government, industry, community, and not for profit organizations. Graduates who are registered dietitians are prepared to work in hospitals, dietetics management, or community nutrition.

The dietetics track is designed to meet the supervised practice and course requirements to qualify graduates to take the Registration Examinations for Dietitian and Nutritionists (RDN exam). The dietetics master's track is currently available only to students who completed the BYU didactic program in dietetics (DPD). Upon graduation and completion of the RDN exam graduates work in multiple areas including hospitals, wellness, large food service operations, business and industry, community health programs, management, and entrepreneurial or private practice.

Research opportunities include focus on vitamin or mineral metabolism, muscle energy metabolism, bone metabolism, energy metabolism, nutrition education, medical nutrition therapy, management in dietetics, and international or community nutrition.

Requirements for Nutrition Science MS Specialization.

Credit hours (30): minimum 24 course work hours plus 6 thesis hours (NDFS 699R)
Prerequisites: Recommended courses for students interested in the MS in Nutritional Science program: NDFS 424, 435; Chem 481
Required courses: NDFS 601, 602, 691R, 699R; Stat 511
Minor (optional): selected with approval of faculty advisor
Examinations: oral examination on course work; and thesis defense
Thesis: standard university format or journal publication format.

Requirements for the Dietetics MS Specialization:

32 credit hours (26 credits course work, plus 6 credits project hours)
Requirement 1 Core Dietetics Courses:
Complete all of the following NDFS 620R (4 credits), 621, 622, 637, 638, 691R (1 credit), (13 credits)
Requirement 2 Core Statistics Courses:
Complete one of the following: STATS 511, CPSE/IP&T 651 or Hlth 604 (3 credits)
Requirement 3 Project:
Complete 6 credits of NDFS 698R
Requirement 4 Electives:
Choose a minimum of 10 credits from NDFS courses or other related courses

Requirement 1 Core Dietetic Courses:
Complete the following courses (13 credits)

NDFS 620R Supervised Practice Experience, (4 credits)
NDFS 621 Clinical Practice in Dietetics, (2 credits)
NDFS 622 Food Systems Management, (2 credits)
NDFS 637 Advanced Management in Dietetics, (2 credits)
NDFS 638 Advanced Clinical Nutrition, (2 credits)
NDFS 691R Graduate Seminar, (minimum 1 credit, maximum of 2 credits count toward 32 credits)

Requirement 2 Core Statistics Course:
Complete one of the following courses (3 credits)

STATS 511 Statistical Methods for Research 1 (3 credits)
CPSE/IP&T 651 Statistic 1: Foundations (3 credits)
HLTH 604 Principles of Biostatistics (3 credits)

Requirement 3 Project:
Complete 6 credit hours

NDFS 698R (6 credits)

Requirement 4 Electives:
Complete 10 credits from the following NDFS courses or other project related university courses

NDFS 435 Nutritional Biochemistry (4 credits)
NDFS 601 Advanced Human Nutrition 1 (3 credits)
NDFS 602 Advanced Human Nutrition 2 (3 credits)
NDFS 631R Special Topics (v)
NDFS 631R Gerontology (2 credits)
NDFS 631R Diabetes (2 credits)
NDFS 631R Diet and Cardiovascular disease (2 credits)
NDFS 631R Eating Disorders (2 credits)
NDFS 631R Current Controversies (2 credits)
NDFS 631R International Nutrition (2 credits)
NDFS 631R Minerals (2 credits)
NDFS 631R Vitamins (2 credits)
NDFS 631R Protein (2 credits)
NDFS 631R Sports Nutrition (2 credits)
NDFS 631R Bone Health (2 credits)
NDFS 631R Diet and Cancer (2 credits)
NDFS 631R Maternal/Child Nutrition & Health (2 credits)
NDFS 631R Nutrition Education (2 credits)
NDFS 631R Advanced Topics Human Obesity (2 credits)

Course from other departments related to project (credits vary)

1,200 hours supervised practice
Project: project proposal, implementation of project, final project report 698R (6 credits)

Required Tests

GRE preferred; MCAT, GMAT, DAT, LSAT

Additional Requirements

Completion of the Graduate Record Examination (GRE), or,
Completion of IELTS or TOEFL if non-English speaking
Correct completion of BYU Graduate Studies application, including letters of recommendation

Advanced Clinical Nutrition [NDFS-638]

Theory, techniques, and practices in medical nutrition therapy.

Hours: 2.0 Credit, 2.0 Lecture, 0.0 Lab
Prerequisites: Admittance into post-baccalaureate dietetic internship OR admittance into nutrition science dietetics MS, dietetics specialization.

Advanced Human Nutrition 1 [NDFS-601]

BYU > College of Life Sciences > Department of Nutrition, Dietetics, and Food Science > Course

Nutritional status and scientific basis for dietary recommendations for carbohydrates, lipids, protein, and energy.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Advanced Human Nutrition 2 [NDFS-602]

BYU > College of Life Sciences > Department of Nutrition, Dietetics, and Food Science > Course

Nutritional status and scientific basis for dietary recommendations for vitamins, minerals, and water.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Advanced Management in Dietetics [NDFS-637]

BYU > College of Life Sciences > Department of Nutrition, Dietetics, and Food Science > Course

Theory and application of management principles in dietetics.

Hours: 2.0 Credit, 2.0 Lecture, 0.0 Lab
Prerequisites: Admittance into post-baccalaureate dietetic internship OR admittance into nutrition science dietetics MS, dietetics specialization.

Advanced Topics in Human Obesity [NDFS-635]

BYU > College of Life Sciences > Department of Nutrition, Dietetics, and Food Science > Course

Neuro-endocrine, genetic, physiologic, and psychological determinants of human obesity; evaluation of current treatments and preventative measures with diet, activity, and behavior modification.

Hours: 2.0 Credit, 3.0 Lecture, 0.0 Lab

Carbohydrates and Their Reactions in Foods [NDFS-652]

BYU > College of Life Sciences > Department of Nutrition, Dietetics, and Food Science > Course

Sugars, higher saccharides, starches, pectins, gums, hemicelluloses, celluloses, and their derivatives and their functions and reactions in foods.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Clinical Practice in Dietetics [NDFS-621]

BYU > College of Life Sciences > Department of Nutrition, Dietetics, and Food Science > Course

Supervised practice in clinical dietetics.

Hours: 2.0 Credit, 2.0 Lecture, 32.0 Lab
Prerequisites: Admittance into post-baccalaureate dietetic internship OR admittance into nutrition science dietetics MS, dietetics specialization.

Diabetes [NDFS-631R]

BYU > College of Life Sciences > Department of Nutrition, Dietetics, and Food Science > Course

Hours: 0.5-3.0 Credit, Arr Lecture, 0.0 Lab
Prerequisites: NDFS 601, 602; or instructor's consent.

Diet and Cancer [NDFS-632]

BYU > College of Life Sciences > Department of Nutrition, Dietetics, and Food Science > Course

Critical examination of scientific evidence regarding the role of dietary macronutrients, vitamins, minerals, and phytochemicals in the initiation, promotion, and progression of cancer.

Hours: 2.0 Credit, 3.0 Lecture, 0.0 Lab

Food Lipids and Their Reactions in Foods [NDFS-656]

BYU > College of Life Sciences > Department of Nutrition, Dietetics, and Food Science > Course

Lipids and their reactions in foods with other components of the food system and/or the surrounding environment; lipid-processing techniques.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Food Systems Management Practice in Dietetics [NDFS-622]

BYU > College of Life Sciences > Department of Nutrition, Dietetics, and Food Science > Course

Supervised practice in food service systems management.

Hours: 2.0 Credit, 2.0 Lecture, 32.0 Lab
Prerequisites: Admittance into post-baccalaureate dietetic internship OR admittance into nutrition science dietetics MS, dietetics specialization.

Graduate Seminar [NDFS-691R]

BYU > College of Life Sciences > Department of Nutrition, Dietetics, and Food Science > Course

Reports and discussion on research and current literature.

Hours: 0.5 Credit, 1.0 Lecture, 0.0 Lab

International Nutrition [NDFS-631R]

BYU > College of Life Sciences > Department of Nutrition, Dietetics, and Food Science > Course

Hours: 0.5-3.0 Credit, Arr Lecture, 0.0 Lab
Prerequisites: NDFS 601, 602; or instructor's consent.

Master's Project [NDFS-698R]

BYU > College of Life Sciences > Department of Nutrition, Dietetics, and Food Science > Course

Applied project demonstrating skills, knowledge, and competencies in the nutrition and dietetics field.

Hours: 1.0-9.0 Credit, 0.0 Lecture, Arr Lab

Master's Thesis [NDFS-699R]

BYU > College of Life Sciences > Department of Nutrition, Dietetics, and Food Science > Course

Hours: 1.0-9.0 Credit, ARR Lecture, ARR Lab

Maternal/Child Nutrition and Health [NDFS-633]

BYU > College of Life Sciences > Department of Nutrition, Dietetics, and Food Science > Course

Critical examination of current nutrition-related research, legislation, and policy guidelines for the life stages of pregnancy, lactation, infancy and school-aged children, with the preparation of a nutrition-related public policy position paper based on one of these life stages.

Hours: 2.0 Credit, 3.0 Lecture, 0.0 Lab

Nutrition Education [NDFS-634]

BYU > College of Life Sciences > Department of Nutrition, Dietetics, and Food Science > Course

Theories that guide nutrition education; nutrition education programs for various target populations; designing and implementing a nutrition education intervention.

Hours: 2.0 Credit, 2.0 Lecture, 0.0 Lab

Protein [NDFS-631R]

BYU > College of Life Sciences > Department of Nutrition, Dietetics, and Food Science > Course

Hours: 0.5-3.0 Credit, Arr Lecture, 0.0 Lab
Prerequisites: NDFS 601, 602; or instructor's consent.

Proteins and their Reactions in Foods [NDFS-654]

BYU > College of Life Sciences > Department of Nutrition, Dietetics, and Food Science > Course

Plant and animal proteins and their functions and changes during food processing; food enzyme properties.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Research [NDFS-697R]

BYU > College of Life Sciences > Department of Nutrition, Dietetics, and Food Science > Course

Hours: 1.0-3.0 Credit, ARR Lecture, ARR Lab

Selected Topics in Nutrition, Dietetics, and Food Science [NDFS-631R]

BYU > College of Life Sciences > Department of Nutrition, Dietetics, and Food Science > Course

A variety of special topics in the areas of nutrition, dietetics, and food sciences.

Hours: 1.0-3.0 Credit, Arr Lecture, Arr Lab
Prerequisites: Instructor's consent.

Supervised Practice Experience [NDFS-620R]

BYU > College of Life Sciences > Department of Nutrition, Dietetics, and Food Science > Course

Supervised practice experience in clinical, management, and community dietetics settings.

Hours: 1.0-4.0 Credit, ARR Lecture, ARR Lab
Prerequisites: Admittance into post-baccalaureate dietetic internship OR admittance into nutrition science dietetics MS, dietetics specialization.

Bellini, Sarah Gunnell

Assistant Professor
Nutrition Dietetics and Food Science
PhD, Utah State University, 2012
Research Interest: Nutrition Assessment of Malnutrition

Christensen, Merrill J

Professor
Nutrition Dietetics and Food Science
PhD, Massachusetts Institute of Technology, 1982
Research Interest: Molecular Mechanisms of Cancer Risk Reduction by Diet

Dunn, Mike L

Professor
Nutrition Dietetics and Food Science
PhD, Cornell University, 1996
Research Interest: Product Development; Food Preservation and Storage; Food Industry Management

Fullmer, Susan

Teaching Professor
Nutrition Dietetics and Food Science
PhD, Brigham Young University, 2004
Research Interest: Role of Diet and Exercise on Bone and Energy Metabolism

Hancock, Chad R

Associate Professor
Nutrition Dietetics and Food Science
PhD, University of Missouri, Columbia, 2005
Research Interest: Skeletal Muscle Energy Metabolism

Jefferies, Laura Kahealani

Associate Professor
Nutrition Dietetics and Food Science
PhD, Utah State University, 2011
Research Interest: Food Sensory Analysis; Food Engineering

Kenealey, Jason Donald

Assistant Professor
Nutrition Dietetics and Food Science
PhD, University of Wisconsin-Madison, 2011
Research Interest: Cell Signaling; Cancer Treatments

Patten, Emily Kay Vaterlaus

Assistant Professor
Nutrition Dietetics and Food Science
PhD, Kansas State University,, 2016
Research Interest: The Dietetics Leadership Identity Project: Leadership Taxonomy in Clinical Dietetics

Pike, Oscar Arthur

Professor
Nutrition Dietetics and Food Science
PhD, Purdue University, 1986
Research Interest: Food Preservation and Storage; Food Analysis

Richards, Rickelle

Associate Professor
Nutrition Dietetics and Food Science
PhD, University of Minnesota, Twin Cities, 2007
Research Interest: Community Nutrition; Food Insecurity

Steele, Frost M

Associate Professor
Nutrition Dietetics and Food Science
PhD, Purdue University, 1990
Research Interest: Food Microbiology; Food Safety; Food Preservation and Storage

Stokes, Nathan Merrill

Assistant Professor
Nutrition Dietetics and Food Science
PhD

Tessem, Jeffery S

Assistant Professor
Nutrition Dietetics and Food Science
PhD, University of Colorado, 2007
Research Interest: Pancreatic Beta Cell Function and Diabetes

Williams, Donna Pauline

Associate Teaching Professor
Nutrition Dietetics and Food Science
PhD

Physics and Astronomy

Address

Physics and Astronomy
N-273 ESC
801-422-9299
graduatesecretary@physics.byu.edu

Programs

- Physics [694898]
- Physics [694897]
- Physics and Astronomy [694879]

The Department of Physics and Astronomy offers graduate training in a variety of subjects including acoustics, astronomy, atomic and molecular physics, condensed matter, optics, plasma, and theory. The department provides abundant opportunities and support for its students and expects them to experience the excitement of discovering new knowledge as they contribute to the on-going development of these age-old disciplines.

Three degrees are offered through the Department of Physics and Astronomy: Physics-MS, Physics-PhD, and Physics and Astronomy-PhD.

The average number of MS and PhD students in the department is twenty-two and fourteen, respectively. The expected time to complete a degree is two to three years for the MS and five to six years for the PhD.

Fax: (801) 422-0101

Chair: Richard R. VanfleetGraduate Coordinator: Eric W. Hirschmann

Resources & Opportunity

Within the department there are currently six recognized research specialties: Acoustics; Astronomy; Atomic, Molecular, and Optical Physics; Condensed Matter Physics; Plasma Physics; Theoretical and Mathematical Physics.

Acoustics. The acoustics research program at BYU is cross-disciplinary, involving the treatment of both fundamental and applied problems in acoustics and vibration using analytical, numerical, and experimental means. It focuses primarily on acoustic signal processing, active and passive noise and vibration control, aeroacoustics, architectural acoustics, audio acoustics, nonlinear acoustics, outdoor sound propagation, and sound-structure interactions. Many resources are readily available for the effective simulation, measurement, and control of physical systems. In addition to strong computational facilities, the program has acoustical laboratories with extensive state-of-the-art measurement equipment, two anechoic chambers, two reverberation chambers, and a variable acoustics chamber that can be used for experimental studies.

Astronomy. Optical photometric and spectroscopic research at BYU is conducted at our own observatories using telescopes ranging from 0.3 to 0.9 m. There is frequent use of Hubble Space Telescope and Spitzer Space Telescope data and data from observatories in Arizona, Canada, Chile, and South Africa as well as from national and international radio observatories. Topics of current research include evolution of variable stars, especially classical and dwarf Cepheids; the extragalactic distance scale; photometric standard systems; interstellar reddening; old and young galactic star clusters; high mass x-ray binaries; pre-main sequence objects; active galactic nuclei; galaxies in or near cosmic voids; brown dwarf atmospheres; transiting planets; interferometric and single dish studies of MASER and molecular emission from star forming regions, late-type OH/IR stars, supernova remnants, AGN, and starburst phenomena; and theoretical studies of black holes and neutron stars.

Atomic, Molecular, and Optical Physics. Computational and experimental studies of ultrafast laser high harmonic generation, quantum measurement, atom and ion interferometry, strongly coupled plasmas, atomic spectroscopy, optical properties of materials in the EUV, thin film deposition and characterization, EUV and x-ray optics, neutron detector development, and quantum optics.

Condensed Matter Physics. Condensed matter physics studies the macroscopic and microscopic properties of the "condensed" phases of matter: metals, insulators, semiconductors, superconductors, nanostructures, liquids, and so forth. Nationally, this is the largest and most active area of physics research. Our interests at BYU center on the electronic, magnetic, optical, structural, and dynamic properties of nanostructures and solids, using experimental, theoretical, and computational methods. Our current activities include creation of new nanostructured materials and their study by scanning probe microscopy, magnetometry, and electron-based microscopy and spectroscopy; X-ray and neutron-scattering; computational studies of novel alloys and nanostructures; group theoretical methods applied to phase transitions in crystals; motion and structure of defects in crystals; optical and magnetic resonance studies of electrons and spin coherence in semiconductor nanostructures; magnetic memory and reversal processes in ferromagnetic thin films; and dynamics of superparamagnetic nanoparticles.

Plasma Physics. Plasma physics research, both experimental and theoretical, centers on nonneutral plasmas. We have both pure-electron and pure-ion plasma experiments. Our pure-ion plasma experiments are currently centered around measuring the half-life of Beryllium-7 in an ionized state. We also have substantial numerical modeling efforts in support of that goal. Our pure-electron plasma studies are aimed at understanding normal modes of oscillation in these plasmas in both the linear and nonlinear regimes.

Theoretical and Mathematical Physics. This group studies the foundations, techniques, and applications of relativity, quantum, and information theory. We develop numerical, algebraic, and analytic approaches to understand complex problems. Current projects include mergers of and energetic emissions from compact objects in general relativity; critical phenomena in nonlinear field theories; coherent behavior in dynamical systems; interaction between radiation and matter; molecular dynamics of defects and impurities in clusters and solids; spin systems and quantum entanglement. Our computational resources include extensive supercomputing facilities on campus and allocations at national supercomputing centers.

Financial Assistance

Qualified graduate students receive financial aid that may take the form of one or more of the following: teaching assistantships, research assistantships, scholarships (including the John Einar Anderson Scholarship and Copley Fellowship), internships, university-sponsored fellowships, or tuition awards. The amount of financial aid given depends on individual merit.

Physics (MS) [694898]

The master of science degree prepares recipients for work and research in industry, government, or teaching. It is commonly earned by those who intend to continue on for the PhD.

Requirements for Degree.

- Credit hours (30): Students must pass a minimum of 24 hours in approved course work with a C- grade or better in each class and complete 6 hours of thesis research in Phsc 699R. The final GPA must be 3.0 or above.
- Required courses: Students are required to enroll in Phscs 691R each semester of residence and in Phscs 696R the first two semesters of residence.
- Study list: By the beginning of the second semester of study a student must be accepted as a research student by a member of the department graduate faculty and with their guidance submit a study list which is the list of courses they will take to complete the 30 hour requirement. This list must be approved by the graduate coordinator.
- Undergraduate credit: Up to 6 hours of coursework may be from undergraduate courses (300 level or higher) upon approval of the graduate coordinator.
- Prospectus: In the first year of residency a prospectus detailing the proposed thesis research must be submitted and defended before the student's advisory committee.
- Thesis: A thesis must be completed, successfully defended in an oral examination before the student's advisory committee.

Students completing this master's degree with a grade of B- or better in 5 non-repeatable courses who pass the qualifying exam and defend their MS thesis at the level of a PhD candidacy exam may smoothly transition into the Physics or Physics and Astronomy PhD program.

Required Tests

GRE General test and GRE Physics subject test

Additional Requirements

Baccalaureate degree or equivalent in physics

Physics (PhD) [694897]

The physics PhD program prepares students for professional careers in physics. These careers include faculty positions at universities and colleges and work in research laboratories and industry.

Requirements for Degree.

> Credit hours (54): Students must pass a minimum 36 hours in approved course work with a B- grade or better in each class and complete 18 hours of dissertation research in Phscs 699R. The required graduate seminars Phscs 691R and Phscs 696R do not count toward the approved coursework hours. The final GPA must be 3.0 or above.
> Required courses: Students are required to enroll in Phscs 601 and 602 their first year, in Phscs 691R each semester of residence, in Phscs 696R the first two semesters of residence, and in 3 hours of Phscs 795R at or before the beginning of the dissertation.
>
> Suggested courses vary by discipline -
> Acoustics: Phscs 660, 661, 662, 721
> Atomic, Molecular, and Atomic Physics: Phscs 641, 642, 651, 652, 731
> Condensed Matter Physics: Phscs 581, 641, 642, 651, 652, 781, 782
> Plasma Physics: Phscs 641, 642, 645, 651, 652, 721, 731, 745
> Theoretical and Mathematical Physics: Phscs 641, 642, 651, 652, 721, 731
> Additional hours from 500-, 600-, and 700-level courses, subject to departmental approval, to make a total of at least 36 hours (may include up to 3 hours of Phscs 697R).
> Study list: In the first year of study a student must be accepted as a research student by a member of the department graduate faculty and with their guidance submit a study list which is the list of courses they will take to complete the 54 hour requirement. This list must be approved by the department graduate coordinator.
> Qualifying examination: A department-administered written examination to demonstrate a graduate-level understanding of the physical principles on which the graduate courses build must be successfully passed within 22 months of entering the program. A student has three opportunities to pass the exam. These exams are scheduled near the beginning of fall, winter and spring semester, depending upon demand.
> Candidacy examination: After two years each student presents a written and oral report of research accomplished at BYU to an examining committee. A passing grade is given if the committee decides that the student displays sufficient mastery of background knowledge and research acumen to successfully complete the PhD. Passing the qualifying examination, having a GPA of 3.0 over at least 5 courses on the study list with no grade lower than a B-, and passing the candidacy examination admits the student to PhD candidacy.
> Prospectus: No later than the third year of residency, a student must submit and successfully defend before their advisory committee a prospectus detailing their proposed plan of research.
> Dissertation: A dissertation must be completed and successfully defended in an oral examination before the student's advisory committee.

Required Tests

GRE General test and GRE Physics subject test.

Additional Requirements

Baccalaureate degree or equivalent preparation in physics

Physics and Astronomy (PhD) [694879]

The PhD program prepares students for professional careers in astronomy and astrophysics. These careers include faculty positions at universities and colleges and work in research institutions and private and national astronomical observatories.

Requirements for Degree.

> Credit hours (54): Students must pass a minimum of 36 hours in approved course work with a B- grade or better in each class and complete 18 hours of dissertation research in Phscs 699R. The required graduate seminars Phscs 691R and Phscs 696R do not count toward the approved coursework hours. The final GPA must be a 3.0 or above.
> Required courses: Students are required to enroll in Phscs 601 and 602 their first year, in Phscs 691R each semester of residence, in Phscs 696R the first two semesters of residence, and in 3 hours of 795R at or before the beginning of the dissertation.

Suggested courses: Phscs 529, 611, 612, 627, 628, 727, 728
Additional hours from 500-, 600-, and 700-level courses, subject to departmental approval, to make a total of at least 36 hours (may include up to 3 hours of Phscs 697R).
Study list: In the first year of study a student must be accepted as a research student by a member of the department graduate faculty and with their guidance submit a study list which is the list of courses they will take to complete the 54 hour requirement. This list must be approved by the graduate coordinator.
Qualifying examination: A department-administered written examination to demonstrate a graduate-level understanding of the physical principles on which the graduate courses build must be successfully passed within 22 months of entering the program. A student has three opportunities to pass the exam. These exams are scheduled near the beginning of fall, winter and spring semester, depending upon demand.
Candidacy examination: After two years each student presents a written and oral report of research accomplished at BYU to an examining committee. A passing grade is given if the committee decides that the student displays sufficient mastery of background knowledge and research acumen to successfully complete the PhD. Passing the qualifying examination, having a GPA of 3.0 over at least 5 courses on the study list with no grade lower than a B-, and passing the candidacy examination admits the student to PhD candidacy.
Prospectus: No later than the third year of residency, a student must submit and successfully defend before their advisory committee a prospectus detailing their proposed plan of research.
Dissertation: A dissertation must be completed and successfully defended in an oral examination before the student's advisory committee.

Required Tests

GRE General test and GRE Physics subject test. The GRE Physics subject test score may be waived for applicants who come to do their dissertation research in astronomy. Astronomy applicants with questions about waiving the GRE Physics subject test should contact the department directly.

Additional Requirements

Baccalaureate degree or equivalent preparation in physics or astronomy

(Phscs-Chem-C S-Geol-Math-MthEd-Stat) Business Career Essentials in Science and Math [PHSCS-500]

Introduction for science, math, and statistics majors to careers in industry. Project planning, oral and written business presentations, business accounting, and technology readiness.

Hours: 1.5 Credit, 1.5 Lecture, 0.0 Lab

(Phscs-Me En 562) Acoustic Systems [PHSCS-660]

Analyzing and modeling electro-mechano-acoustic systems. Transducers, calibration, and acoustical measurements. Sound sources, arrays, coupling, radiation, and directivity. Duct acoustics and acoustic filters.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Phscs 561 or instructor's consent.

(Phscs-Me En) Fundamentals of Acoustics [PHSCS-561]

Vibrating systems, elastic media, mechanical energy, and radiation. Sound generation, transmission, reflection, and reception.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Phscs 318 or equivalent; Phscs 461 or concurrent enrollment.

Academic Internship [PHSCS-599R]

BYU > College of Physical and Mathematical Sciences > Physics and Astronomy > Course

Cooperative education internships off campus.

Hours: 0.5-9.0 Credit, ARR Lecture, ARR Lab
Prerequisites: Department internship coordinator's consent.

Acoustical Measurement Methods [PHSCS-560]

BYU > College of Physical and Mathematical Sciences > Physics and Astronomy > Course

Acoustics-based data acquisition and signal processing in the time and frequency-domain domains. Use of acoustical measurement standards. Preparation of technical memoranda.

Hours: 3.0 Credit, 3.0 Lecture, 1-2 Lab

Advanced Fluid Acoustics [PHSCS-661]

BYU > College of Physical and Mathematical Sciences > Physics and Astronomy > Course

General solutions of the wave equation with applications. Kirchhoff-Helmholtz integral theorem. Sound radiation from generalized sources. Attenuation of propagating waves. Acoustic reflection, absorption, and scattering. Enclosed sound fields. Room acoustics. Energy-based acoustics.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Phscs 561 or instructor's consent.

Advanced Observational Astronomy [PHSCS-529]

BYU > College of Physical and Mathematical Sciences > Physics and Astronomy > Course

Advanced techniques of observational astronomy, emphasizing knowledge and skills necessary to carry out observational scientific investigation in astronomy.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Advanced Quantum Theory [PHSCS-751]

BYU > College of Physical and Mathematical Sciences > Physics and Astronomy > Course

Topics in relativistic quantum mechanics, including quantum field theory.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Advanced Quantum Theory [PHSCS-752]

BYU > College of Physical and Mathematical Sciences > Physics and Astronomy > Course

Topics in relativistic quantum mechanics, including quantum field theory.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Advanced Topics in Physics [PHSCS-711R]

BYU > College of Physical and Mathematical Sciences > Physics and Astronomy > Course

Recent and upcoming topics include chaos, thin films, phase transformations, amorphous solids, quantum optics, astronomy using nontraditional frequencies, and particle physics.

Hours: 0.5-3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Instructor's consent.

Advanced Topics in Theoretical Physics [PHSCS-618]

BYU > College of Physical and Mathematical Sciences > Physics and Astronomy > Course

Introductory group theory. Basic representation theory and developments, with applications to quantum mechanics and molecular and solid-state physics.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Colloquium [PHSCS-691R]

BYU > College of Physical and Mathematical Sciences > Physics and Astronomy > Course

Hours: 0.5 Credit, 1.0 Lecture, 0.0 Lab

Dynamics [PHSCS-721]

BYU > College of Physical and Mathematical Sciences > Physics and Astronomy > Course

Advanced treatment of classical mechanics, including Lagrange's and Hamilton's equations, rigid body motion, and canonical transformations.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Phscs 321 or equivalent.

Electrical Engineering Principles and Practices for Physicists [PHSCS-540]

BYU > College of Physical and Mathematical Sciences > Physics and Astronomy > Course

Electronic instrumentation theory and methods. Computer aided circuit design and analysis with transforms, logic and computer simulation. Analog, digital, and discrete signal systems. Printed circuit design and system-on-a-chip creation.

Hours: 2.0 Credit, 0.0 Lecture, 6.0 Lab
Prerequisites: Phscs 140, 145, 220; Math 303 or 334; ability to program in Matlab.

Extragalactic Astrophysics and Cosmology 1 [PHSCS-727]

BYU > College of Physical and Mathematical Sciences > Physics and Astronomy > Course

Astrophysics of galaxies, active galactic nuclei, and cosmology.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Instructor's consent.

Extragalactic Astrophysics and Cosmology 2 [PHSCS-728]

BYU > College of Physical and Mathematical Sciences > Physics and Astronomy > Course

Astrophysics of galaxies, active galactic nuclei, and cosmology.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Instructor's consent.

Galactic Astrophysics 1 [PHSCS-627]

BYU > College of Physical and Mathematical Sciences > Physics and Astronomy > Course

Astrophysics of the interstellar medium and galactic structure.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Instructor's consent.

Galactic Astrophysics 2 [PHSCS-628]

BYU > College of Physical and Mathematical Sciences > Physics and Astronomy > Course

Astrophysics of the interstellar medium and galactic structure.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Instructor's consent.

Graduate Thesis/Dissertation [PHSCS-699R]

BYU > College of Physical and Mathematical Sciences > Physics and Astronomy > Course

Hours: 1.0-9.0 Credit, ARR Lecture, ARR Lab

Interactions of Sound Fields and Vibrating Structures [PHSCS-662]

BYU > College of Physical and Mathematical Sciences > Physics and Astronomy > Course

Sound-structure interactions. Sound transmission through panels and sound-isolation techniques. Advanced passive and active techniques in sound and vibration control. Near-field acoustic holography.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Phscs 561 or instructor's consent.

Introduction to Plasma Physics [PHSCS-545]

BYU > College of Physical and Mathematical Sciences > Physics and Astronomy > Course

Introduction to plasma physics, including single-particle motion and both fluid and kinetic models of plasma behavior.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Introduction to Research [PHSCS-696R]

BYU > College of Physical and Mathematical Sciences > Physics and Astronomy > Course

One or two research areas to be selected, with 20 hours of participation required each semester.

Hours: 0.5 Credit, 0.0 Lecture, 1.5 Lab

Kinetic Theory of Plasmas [PHSCS-745]

BYU > College of Physical and Mathematical Sciences > Physics and Astronomy > Course

Plasma equilibrium and dynamics using a kinetic description, including collisionless damping and collisional transport.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Lasers and Atoms [PHSCS-571]

BYU > College of Physical and Mathematical Sciences > Physics and Astronomy > Course

Laser amplification, cavity design, and control and characterization of temporal and spatial modes. Interactions between lasers and atoms.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Phscs 451, 471; or equivalents.

Magnetohydrodynamic Theory of Plasmas [PHSCS-645]

BYU > College of Physical and Mathematical Sciences > Physics and Astronomy > Course

Plasma equilibrium and dynamics using magnetohydrodynamic theory with application to fusion and astrophysical plasmas.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Mathematical Physics [PHSCS-601]

BYU > College of Physical and Mathematical Sciences > Physics and Astronomy > Course

Topics in modern theoretical physics, including applications of matrix and tensor analysis and linear differential and integral operators.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Phscs 318, Math 334; or equivalents.

Mathematical Physics [PHSCS-602]

BYU > College of Physical and Mathematical Sciences > Physics and Astronomy > Course

Topics in modern theoretical physics, including applications of matrix and tensor analysis and linear differential and integral operators.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Phscs 318, Math 334; or equivalents.

Mathematical Theory of Electricity and Magnetism [PHSCS-641]

BYU > College of Physical and Mathematical Sciences > Physics and Astronomy > Course

Advanced electrostatics and magnetostatics, Maxwell's equations and electromagnetic waves, relativistic electrodynamics, radiation theory, and interaction of matter with electromagnetic fields.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Phscs 442 or equivalent.

Mathematical Theory of Electricity and Magnetism [PHSCS-642]

BYU > College of Physical and Mathematical Sciences > Physics and Astronomy > Course

Advanced electrostatics and magnetostatics, Maxwell's equations and electromagnetic waves, relativistic electrodynamics, radiation theory, and interaction of matter with electromagnetic fields.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Modern Theory of Solids [PHSCS-781]

BYU > College of Physical and Mathematical Sciences > Physics and Astronomy > Course

Quantum theory of solids, emphasizing the unifying principles of symmetry, energy-band theory, dynamics of electrons and of periodic lattices, and cooperative phenomena.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Modern Theory of Solids [PHSCS-782]

BYU > College of Physical and Mathematical Sciences > Physics and Astronomy > Course

Quantum theory of solids, emphasizing the unifying principles of symmetry, energy-band theory, dynamics of electrons and of periodic lattices, and cooperative phenomena.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Physics of Semiconductor Devices [PHSCS-587]

BYU > College of Physical and Mathematical Sciences > Physics and Astronomy > Course

Device physics, with an in-depth study of the MOS transistor and other nanoscale computing devices.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Quantum Mechanics [PHSCS-651]

BYU > College of Physical and Mathematical Sciences > Physics and Astronomy > Course

Nonrelativistic quantum mechanics, with applications.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Phscs 451 or equivalent.

Quantum Mechanics [PHSCS-652]

BYU > College of Physical and Mathematical Sciences > Physics and Astronomy > Course

Nonrelativistic quantum mechanics, with applications.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Phscs 451 or equivalent.

Quantum Optics [PHSCS-670]

BYU > College of Physical and Mathematical Sciences > Physics and Astronomy > Course

Quantum description of light and interactions with matter. Nonlinear optics.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Phscs 452, 471; or equivalents.

Readings in the Research Literature [PHSCS-795R]

BYU > College of Physical and Mathematical Sciences > Physics and Astronomy > Course

Focused readings and student presentations based on these readings.

Hours: 1.0-3.0 Credit, Arr. Lecture, 0.0 Lab
Prerequisites: Departmental approval.

Relativistic Astrophysics [PHSCS-626]

BYU > College of Physical and Mathematical Sciences > Physics and Astronomy > Course

Applications of general relativity to modern astrophysics, including gravitational collapse, black holes, cosmological models, gravitational waves, etc.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Research [PHSCS-697R]

BYU > College of Physical and Mathematical Sciences > Physics and Astronomy > Course

Hours: 0.5-6.0 Credit, ARR Lecture, ARR Lab

Scanning Electron Microscopy (SEM) for Physical Science and Engineering [PHSCS-588]

BYU > College of Physical and Mathematical Sciences > Physics and Astronomy > Course

Theoretical aspects of sample preparation, basic and advanced imaging, X-ray energy dispersive spectrometry, and other analytical materials characterization techniques on the scanning electron microscope (SEM).

Hours: 3.0 Credit, 2.0 Lecture, 3.0 Lab

Solid-State Physics [PHSCS-581]

BYU > College of Physical and Mathematical Sciences > Physics and Astronomy > Course

Introduction to the physics of solids. Crystal structure and symmetry, X-ray diffraction, lattice vibrations, metals and semiconductors, superconductivity, thermal properties, magnetic properties, and dielectric and optical properties.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Phscs 222 or equivalent.

Special Topics in Contemporary Physics [PHSCS-513R]

BYU > College of Physical and Mathematical Sciences > Physics and Astronomy > Course

Topics generally related to recent developments in physics.

Hours: 0.5-3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Instructor's consent.

Statistical Mechanics [PHSCS-731]

BYU > College of Physical and Mathematical Sciences > Physics and Astronomy > Course

Advanced thermodynamics, classical statistical mechanics, quantum statistics, and transport theory.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Stellar Astrophysics 1 [PHSCS-611]

BYU > College of Physical and Mathematical Sciences > Physics and Astronomy > Course

Theory of stellar atmospheres and the internal structure of stars.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Instructor's consent.

Stellar Astrophysics 2 [PHSCS-612]

BYU > College of Physical and Mathematical Sciences > Physics and Astronomy > Course

Theory of stellar atmospheres and the internal structure of stars.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Instructor's consent.

Theory of Relativity [PHSCS-625]

BYU > College of Physical and Mathematical Sciences > Physics and Astronomy > Course

Review of special relativity and general relativity, with applications to modern astrophysics.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Phscs 451 or equivalent.

Thin-Film Physics [PHSCS-585]

BYU > College of Physical and Mathematical Sciences > Physics and Astronomy > Course

Preparation, characterization, use, and special properties of modern thin films; interdisciplinary treatment. Of interest to students in applied physics and engineering.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Phscs 222 or equivalent.

Transmission Electron Microscopy for Physical Science and Engineering [PHSCS-586]

BYU > College of Physical and Mathematical Sciences > Physics and Astronomy > Course

Practical and theoretical aspects of sample preparation, basic and advanced imaging, electron diffraction, and other analytical materials characterization techniques on the transmission electron microscope (TEM).

Hours: 3.0 Credit, 2.0 Lecture, 3.0 Lab

X-Ray Physics [PHSCS-671]

BYU > College of Physical and Mathematical Sciences > Physics and Astronomy > Course

Physical characteristics of X-ray generation, optics, and experimental applications. Methods of X-ray imaging emphasized.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Phscs 452 or equivalent.

Allred, David D

BYU > College of Physical and Mathematical Sciences > Physics and Astronomy > Faculty

Professor
Physics and Astronomy
PhD, Princeton University, 1977
Research Interest: Surfaces, Multilayers, and Nanoscale Thin Films; EUV and Soft X-Ray Optics

Anderson, Brian E

BYU > College of Physical and Mathematical Sciences > Physics and Astronomy > Faculty

Associate Professor
Physics and Astronomy
PhD

Bergeson, Scott D

BYU > College of Physical and Mathematical Sciences > Physics and Astronomy > Faculty

Professor
Physics and Astronomy
PhD, University of Wisconsin, 1995
Research Interest: Experimental Atomic Physics

Campbell, Branton J

BYU > College of Physical and Mathematical Sciences > Physics and Astronomy > Faculty

Professor
Physics and Astronomy
PhD, University of California, Santa Barbara, 1999
Research Interest: Experimental Condensed Matter Physics

Chesnel, Karine Marguerite

Associate Professor
Physics and Astronomy
PhD, Joseph Fourier University, France, 2002
Research Interest: Experimental Condensed Matter Physics

Colton, John S

Associate Professor
Physics and Astronomy
PhD, University of California, 2000
Research Interest: Experimental Condensed Matter Physics

Davis, Robert Clinton

Professor
Physics and Astronomy
PhD, University of Utah, 1996
Research Interest: Experimental Condensed Matter Physics

Durfee, Dallin S

Associate Professor
Physics and Astronomy
PhD, Massachusetts Institute of Technology, 1999
Research Interest: Experimental Atomic Physics

Gee, Kent L

Professor
Physics and Astronomy
PhD, Pennsylvania State University, 2005
Research Interest: Acoustics

Hart, Grant W

Associate Professor
Physics and Astronomy
PhD, University of Maryland, 1983
Research Interest: Plasma Physics

Hart, Gus L

Professor
Physics and Astronomy
PhD, University of California, Davis, 1999
Research Interest: Computational Condensed Matter Physics

Hintz, Eric G B

Associate Professor
Physics and Astronomy
PhD, Brigham Young University, 1995
Research Interest: Observational Astrophysics

Hirschmann, Eric W

Associate Professor
Physics and Astronomy
PhD, University of California, Santa Barbara, 1996
Research Interest: Theoretical and Computational Physics

Joner, Michael DeLoss

Research Professor
Physics and Astronomy
PhD

Leishman, Timothy Ward

Professor
Physics and Astronomy
PhD, Pennsylvania State University, 2000
Research Interest: Acoustics

Moody, Joseph Ward

Professor
Physics and Astronomy
PhD, University of Michigan, 1986
Research Interest: Observational Astrophysics

Neilsen, David W

Professor
Physics and Astronomy
PhD, University of Texas, Austin, 1999
Research Interest: Gravitational Physics

Peatross, Justin B

Professor
Physics and Astronomy
PhD, University of Rochester, 1993
Research Interest: High-Intensity Laser Physics

Ragozzine, Darin A

Assistant Professor
Physics and Astronomy
PhD, California Institute of Technology, 2009
Research Interest: Planetary Science, Astrophysics, Exoplanets, Astrostatistics

Sommerfeldt, Scott D

Professor
Physics and Astronomy
PhD, Pennsylvania State University, 1989
Research Interest: Acoustics

Stephens, Denise Catherine

Associate Professor
Physics and Astronomy
PhD, New Mexico State University, 2001
Research Interest: Observational Astrophysics

Transtrum, Mark Kenneth

Assistant Professor
Physics and Astronomy
PhD

Turley, Robert Steven

Professor
Physics and Astronomy
PhD, Massachusetts Institute of Technology, 1984
Research Interest: Computational and Atomic Physics

Vanfleet, Richard R

Professor
Physics and Astronomy
PhD, University of Illinois, 1997
Research Interest: Electron Microscopy; Materials Physics

Ware, Michael J

Associate Professor
Physics and Astronomy
PhD, Brigham Young University, 2001
Research Interest: Quantum Physics

Department of Physiology and Developmental Biology

Address

Physiology and Developmental Biology
4005 LSB
801-422-2006
pdbio@byu.edu

Programs

Physiology and Developmental Biology [285760]
Physiology and Developmental Biology [285770]

Physiology is the study of the functions of body systems. Developmental Biology is the study of how specific genes govern differentiation of cells, tissues, and organs with unique structures and functions.

Graduate programs within the department offer research training and classroom instruction in a wide range of areas pertaining to these disciplines. A biophysics research group is also part of the department. Areas of research include neuroendocrinology and reproduction, endocrine and immune interactions, pulmonology and maternal-fetal interactions, development of the central nervous system, hereditary of connective tissue disorders, mouse and chick models of development, exercise physiology and glucose metabolism, membrane transport and channel structure, synaptic vesicle recycling, and blood pressure control by the autonomic nervous system.

In addition to working with department faculty, graduate students have the option of performing cross disciplinary research with faculty members in Nutritional Science with diverse research foci including prostate cancer, phytochemicals and cancer, beta cell biology/diabetes, and energy metabolism.

The Department of Physiology and Developmental Biology offers two graduate degrees: Physiology and Developmental Biology-MS, and, Physiology and Developmental Biology-PhD.

The department has approximately twenty graduate students enrolled each year. Students working toward a master's degree generally complete all requirements within two years. PhD students generally complete all requirements in four to five years.

Physiology and Developmental Biology Administration:

Fax: (801) 422-0004

Chair: Michael R. Stark
Graduate Coordinator: David Thomson
Program Manager: Connie L. Provost

Resources & Opportunity

Program resources include the laboratories and equipment of department faculty within the Life Science Building. An electron microscope laboratory, with both transmission and scanning microscopes, is also located on campus. A DNA sequencing center is available in the Life Science Building.

Financial Assistance

The Department of Physiology and Developmental Biology offers the following forms of financial support: Teaching assistantships, research assistantships, and tuition awards. Specific endowment fund awards are also available.

Physiology and Developmental Biology (MS) [285760]

This MS degree program provides students with a sound understanding of current concepts in physiology and/or developmental biology. The thesis research project teaches the fundamentals of scientific inquiry and trains the student in state-of-the-art research techniques. Submission of the thesis to a peer-reviewed journal is highly encouraged but not required.

Requirements for Degree

Credit hours (30): minimum 24 approved course work hours plus 6 thesis hours (PDBio 699R).
Required courses (11 hours): Bio 503 (1 hour); PDBio 582 or 601 (3 hours), 694R (2 hours), 696R (2 hours); Stat 511 or equivalent (3 hours).
A Seminar must be presented each year (PDBio 694R)
Thesis: standard university thesis format or journal publication format.
Examinations: (A) course work oral examination; (B) oral defense of thesis.

Required Tests

GRE, MCAT, or DAT

Additional Requirements

Resume required

Document summarizing interest level, likely fit, and desire to conduct graduate research with at least 5 specific faculty members in the program.

Physiology and Developmental Biology (PhD) [285770]

BYU > College of Life Sciences > Department of Physiology and Developmental Biology > Program

This PhD degree program is a comprehensive academic endeavor in physiology and developmental biology. Although the research project of each PhD student will focus in an area of either physiology or developmental biology, all students will be expected to have an understanding of key concepts in both disciplines. The research project will include independent inquiry and in-depth application of the scientific method. Publication of the research in peer-reviewed journals is expected but not required.

Requirements for Degree

Credit hours: 54 hours, including 18 hours of dissertation (PDBio 799R).
Students who have earned a master's degree must complete at least 36 semester hours of additional graduate work at BYU beyond the master's degree.
Required courses: Bio 503 (1 hour); PDBio 582 and 601 (3 hours each), 694R (4 hours), 696R (4 hours); Stat 511 (3 hours).
Research credit (PDBio 649R and 799R) may not exceed 27 hours.
A seminar must be presented each year (PDBio 694R)
A professional development requirement must be met (PDBio 689R).
Dissertation: standard university dissertation format or journal publication format.
Examinations: (A) comprehensive written and oral examination; (B) defense of dissertation.

Required Tests

GRE

Additional Requirements

Resume required

Document summarizing interest level, likely fit, and desire to conduct graduate research with at least 5 specific faculty members in the program.

Advanced Developmental Biology [PDBIO-650R]

BYU > College of Life Sciences > Department of Physiology and Developmental Biology > Course

Hours: 1.0-3.0 Credit, ARR Lecture, ARR Lab
Prerequisites: Instructor's consent.

Advanced Topics in Clinical Human Anatomy [PDBIO-520R]

BYU > College of Life Sciences > Department of Physiology and Developmental Biology > Course

Applied clinical anatomy lectures and lab exercises.

Hours: 1.0-2.0 Credit, 1.0 Lecture, 2.0 Lab
Prerequisites: Or equivalent.

Advanced Topics in Physiology and Developmental Biology [PDBIO-550R]

BYU > College of Life Sciences > Department of Physiology and Developmental Biology > Course

Advanced undergraduate or graduate-level course in physiology, developmental biology, or biophysics. Topics vary. 550R courses have a defined curriculum, including graded assignments and exams. Expectations and learning outcomes will be specified in the syllabus.

Hours: 1.0-4.0 Credit, ARR Lecture, ARR Lab
Prerequisites: Instructor's consent.

Cardiovascular and Respiratory Physiology [PDBIO-664]

BYU > College of Life Sciences > Department of Physiology and Developmental Biology > Course

Advanced course based on current research literature.

Hours: 2.0 Credit, 2.0 Lecture, 0.0 Lab
Prerequisites: PDBio 362 or equivalent.

Cellular and Molecular Physiology [PDBIO-601]

BYU > College of Life Sciences > Department of Physiology and Developmental Biology > Course

Primary literature used to explore modern concepts of physiology at the cellular and molecular level. Topics include muscle function, transport mechanisms, cell signaling, and ion channels.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: PDBio 362, 363; or equivalents.

Cellular Electrophysiology and Biophysics [PDBIO-568]

BYU > College of Life Sciences > Department of Physiology and Developmental Biology > Course

Using electrophysiology and biophysics as an approach to study of physiology. Extensive look at ion channels and cell signaling.

Hours: 3.0 Credit, 2.0 Lecture, 3.0 Lab

Developmental Genetics [PDBIO-582]

BYU > College of Life Sciences > Department of Physiology and Developmental Biology > Course

Gene function and regulation during cell specification and differentiation, pattern formation, and organogenesis in developing embryo.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: PDBio 382 or equivalent.

Differential Equations in Biology [PDBIO-650R]

BYU > College of Life Sciences > Department of Physiology and Developmental Biology > Course

Hours: 1.0-3.0 Credit, ARR Lecture, ARR Lab
Prerequisites: Instructor's consent.

Doctoral Dissertation [PDBIO-799R]

BYU > College of Life Sciences > Department of Physiology and Developmental Biology > Course

Hours: 1.0-18.0 Credit, 0.0 Lecture, ARR Lab

Endocrinology [PDBIO-565]

BYU > College of Life Sciences > Department of Physiology and Developmental Biology > Course

Mammalian hormones.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: PDBio 362 or instructor's consent.

Graduate Seminar [PDBIO-696R]

BYU > College of Life Sciences > Department of Physiology and Developmental Biology > Course

Seminar series organized and run by the Department of Physiology and Developmental Biology. Speakers are enlisted from both inside and outside the university.

Hours: 0.5 Credit, 1.0 Lecture, 0.0 Lab

Laboratory Research [PDBIO-649R]

BYU > College of Life Sciences > Department of Physiology and Developmental Biology > Course

Laboratory research for graduate students.

Hours: 1.0-6.0 Credit, ARR Lecture, ARR Lab
Prerequisites: Instructor's consent.

Master's Thesis [PDBIO-699R]

BYU > College of Life Sciences > Department of Physiology and Developmental Biology > Course

Hours: 1.0-6.0 Credit, 0.0 Lecture, ARR Lab

Molecular Dynamics [PDBIO-550R]

BYU > College of Life Sciences > Department of Physiology and Developmental Biology > Course

Advanced undergraduate or graduate-level course in molecular dynamics. 550R courses have defined curriculum, including graded assignments and exams. Expectations and learning outcomes will be specified in the syllabus.

Hours: 0.5-4.0 Credit, ARR Lecture, ARR Lab
Prerequisites: Instructor's consent.

Molecular Neuroscience [PDBIO-650R]

BYU > College of Life Sciences > Department of Physiology and Developmental Biology > Course

Hours: 1.0-3.0 Credit, ARR Lecture, ARR Lab
Prerequisites: Instructor's consent.

Physiology of Drug Mechanisms [PDBIO-561]

BYU > College of Life Sciences > Department of Physiology and Developmental Biology > Course

Overview of physiological and pharmacological mechanisms and principles of human therapeutics as applied to clinically significant pathophysiology.

Hours: 3.0 Credit, 2.0 Lecture, 3.0 Lab

Practicum in Life Sciences Teaching or Research [PDBIO-689R]

BYU > College of Life Sciences > Department of Physiology and Developmental Biology > Course

Curricula, principles, concepts, and experiences in teaching life sciences effectively or methods of effective research and grantsmanship in the life sciences.

Hours: 0.5-3.0 Credit, 0.0 Lecture, ARR Lab

Renal and Gastrointestinal Physiology [PDBIO-650R]

BYU > College of Life Sciences > Department of Physiology and Developmental Biology > Course

Hours: 1.0-3.0 Credit, ARR Lecture, ARR Lab
Prerequisites: Instructor's consent.

Reproductive Physiology [PDBIO-562]

BYU > College of Life Sciences > Department of Physiology and Developmental Biology > Course

Mammalian reproductive physiology.

Hours: 0.0-3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: PDBio 362 or equivalent.

Research Presentation [PDBIO-694R]

BYU > College of Life Sciences > Department of Physiology and Developmental Biology > Course

Oral presentation of graduate research project (introduction, methods, hypothesis, results, conclusions).

Hours: 0.5 Credit, Arr. Lecture, 0.0 Lab

Responsible Conduct of Research [PDBIO-570]

BYU > College of Life Sciences > Department of Physiology and Developmental Biology > Course

Ethical and responsible conduct on topics such as experimental design, data acquisition, professional and collaborative relationships, authorship, and scientific outreach.

Hours: 1.0 Credit, 1.0 Lecture, 0.0 Lab

Selected Topics in Physiology, Developmental Biology, and Neuroscience [PDBIO-650R]

BYU > College of Life Sciences > Department of Physiology and Developmental Biology > Course

Topics vary.

Hours: 1.0-3.0 Credit, ARR Lecture, ARR Lab
Prerequisites: Instructor's consent.

Arroyo, Juan Alberto

BYU > College of Life Sciences > Department of Physiology and Developmental Biology > Faculty

Assistant Professor
Physiology and Developmental Biology
PhD, Southern Illinois University School of Medicine, 2003
Research Interest: Molecular signaling of trophoblast cells apoptosis and the regulation of cell invasion during pregnancies complicated with intrauterine growth restriction, preterm delivery, and preeclampsia

Barrow, Jeffery Richard

Associate Professor
Physiology and Developmental Biology
PhD, University of Utah, 1999
Research Interest: Molecular Mechanisms of Development of Limbs and Craniofacial Structures; Tumorigenesis

Bikman, Benjamin Thomas

Associate Professor
Physiology and Developmental Biology
PhD, East Carolina University, 2008
Research Interest: Obesity and Metabolism

Brown, Michael D

Teaching Professor
Physiology and Developmental Biology
PhD, Colorado State University, 1999
Research Interest: Regulation of Axon and Dendrite Extension and Pathfinding During Nervous System Development

Busath, Dave D

Professor
Physiology and Developmental Biology
MD, University of Utah, 1978
Research Interest: Electrophysiology; Molecular Modeling: Molecular Biophysics

Edwards, Jeff Glen

Associate Professor
Physiology and Developmental Biology
PhD, University of Utah, 2003
Research Interest: Synapse Activity and Structure

Hansen, Jason Merrell

Associate Professor
Physiology and Developmental Biology
PhD, University of Michigan at Ann Arbor, 2001
Research Interest: Oxidative Stress-Related Changes to Cell Signaling During Embryonic Development

Hansen, Marc David

Professor
Physiology and Developmental Biology
PhD, Stanford University, 2002
Research Interest: Molecular Basis of Cell-Cell Adhesion in Development and Metastasis

Hill, Jonathon T

Assistant Professor
Physiology and Developmental Biology
PhD, Columbia University, 2010
Research Interest: Congenital Heart Birth Defects

Kooyman, David Lee

Professor
Physiology and Developmental Biology
PhD, Ohio University, 1993
Research Interest: Mechanisms of Gene Expression

Mizrachi, Dario

Assistant Professor
Physiology and Developmental Biology
PhD, Hebrew University of Jerusalem, Israel, 2002
Research Interest: Physiology, Animal Reproduction

Porter, James Paul

Professor
Physiology and Developmental Biology
PhD, University of California, San Francisco, 1982
Research Interest: Neuroendocrinology; Hypertension

Reynolds, Paul Rulon

Associate Professor
Physiology and Developmental Biology
PhD, University of Cincinnati, Cin. Children, 2004
Research Interest: Developmental Role of Autocrine/Paracrine Signaling in Lung During Branching Morphogenesis

Silcox, Roy W

Associate Professor
Physiology and Developmental Biology
PhD, North Carolina State University, 1986
Research Interest: Reproductive Physiology; Management; Superovulation; Embryonic Development

Stark, Michael Robert

Professor
Physiology and Developmental Biology
PhD, University of California, Irvine, 1998
Research Interest: Developmental Biology

Sudweeks, Sterling N

Associate Professor
Physiology and Developmental Biology
PhD, University of Utah, 1997
Research Interest: Pharmacology of the Nervous System; Ion Channels

Suli, Arminda

Assistant Professor
Physiology and Developmental Biology
PhD, University of Utah, 1999
Research Interest: Neural Circuitry Development

Thomson, David Morley

Associate Professor
Physiology and Developmental Biology
PhD, East Carolina University, 2005
Research Interest: Intracellular Signaling Pathways Controlling Skeletal Muscle Growth and Metabolism

Woodbury, Dixon J

Professor
Physiology and Developmental Biology
PhD, University of California, Irvine, 1986
Research Interest: Molecular Mechanisms of Exocytosis; Neuroscience of Transmitter Release; Electrophysiology of Ion Channels

Department of Plant and Wildlife Sciences

Address

Plant and Wildlife Sciences
4112 LSB
801-422-9389
pws-grad-secretary@byu.edu

Programs

- Environmental Science [285860]
- Genetics and Biotechnology [285861]
- Wildlife and Wildlands Conservation [282062]
- Wildlife and Wildlands Conservation [282071]

The Department of Plant and Wildlife Sciences offers graduate training and education in a variety of areas: plant sciences, biotechnology, genetics, environmental science, ecology, soil science, and wildlife and wildlands conservation. Those admitted to this program will have completed BS degrees with strong backgrounds in the basic mathematical, physical, and biological sciences. Students completing requirements in our graduate degree programs will be prepared to accept employment in plant genetics, biotechnology, conservation, ecology, environmental science, wildland and wildlife management, or consulting or to continue graduate education toward a PhD and postgraduate studies.

Four degrees are offered through the Department of Plant and Wildlife Sciences: Environmental Science-MS; Genetics and Biotechnology-MS; Wildlife and Wildlands Conservation-MS; and Wildlife and Wildlands Conservation-PhD.

These graduate programs are supported by faculty members within the department. Their research and teaching interests include wildland ecology, wildlife biology, plant ecology, genetics and biotechnology, plant growth under environmental stress, urban landscape environments, bioremediation of contaminated soils and water, and both modern and ancient agricultural environments. All MS and PhD degrees are earned in thesis-only programs. Students are expected to present their theses in the form of one or more manuscripts ready for submission to refereed journals.

Fax: (801) 422-0008

Chair: Brock R. McMillanGraduate Coordinator: Bradley Geary

Environmental Science (MS) [285860]

Application Deadline: February 1

Pursuit of the MS degree in environmental science provides students with research and education opportunities in environmental protection and remediation and in plant growth and physiology. Students will select graduate course work in soil science, biology, and environmentally related courses taught in departments across the campus.

Those completing program requirements will be well prepared for employment in environmental and agricultural consulting, teaching at the junior college level, and continued graduate studies for the PhD. Their research and teaching interests include: plant growth under environmental stress, invasive species, plant physiology, urban landscape environments, bioremediation of contaminated soils and water, and both modern and ancient agricultural environments. All emphases require original research topics with the results presented in thesis format. This research is expected to be of a publication quality and thesis style best reflecting that of a professional journal, thus facilitating timely submissions for publication. We also encourage formal presentations at professional meetings.

Credit hours: (30): minimum 24 course work hours plus 6 thesis hours (PWS 699R).
Undergraduate hours: no more than 10 semester hours may be applied toward master's degree.
Thesis: completion of the thesis in scientific journal format and prepared for journal submission.
Required courses: Two semesters of PWS 694R (seminar) and one semester of graduate statistics (Stat 511).
Biannual progress reviews by advisory committee and graduate committee.
Examinations: final oral defense of thesis.

Required Tests

GRE

TOEFL or IELTS (International applicants)

Resume

Additional Requirements

Baccalaureate degree in Biogeochemistry, Biology, Environmental Science, Resource Conservation, or related field.

Genetics and Biotechnology (MS) [285861]

Application Deadline: February 1

Genetics is the study of inheritance. Biotechnology is the application of modern DNA marker, isolation, and transfer technologies toward improving plant and animal agricultural productivity, environmental remediation, and the treatment of disease. These branches of biology have risen to prominence during the course of the past fifteen years and are widely recognized for their potential impact upon society in the twenty-first century. Employment opportunities in industry and academia are especially plentiful for graduates with advanced degrees in genetics and biotechnology. All emphases require original research topics with the results presented in thesis format. This research is expected to be of a publication quality and thesis style best reflecting that of a professional journal, thus facilitating timely submissions for publication. We also encourage formal presentations at professional meetings.

Credit hours: (30): minimum 24 course work hours plus 6 thesis hours (PWS 699R).

Undergraduate hours: no more than 10 semester hours may be applied toward master's degree.
Thesis: completion of the thesis in scientific journal format and prepared for journal submission.
Required courses: PWS 586, 673R and 670, 672, plus two semesters of 694R.
Biannual progress reviews by advisory committee and graduate committee.
Examinations: final oral defense of thesis.

Required Tests

GRE

TOEFL or IELTS (International applicants)

Resume

Additional Requirements

Baccalaureate degree in the life sciences

Wildlife and Wildlands Conservation (MS) [282062]

BYU > College of Life Sciences > Department of Plant and Wildlife Sciences > Program

This program emphasizes the scientific method in developing critical thinking and analytical skills applied to conservation and management problems related to wildlife ecology, wildlands, restoration science and/or rangeland ecology. Depending on the emphasis, advanced training in topic specialties may be complemented by courses in statistics, geographical information systems (GIS), soil sciences, model testing, systematics, or advanced ecology. All emphases require original research topics with the results presented in thesis format. This research is expected to be of a publication quality and thesis style best reflecting that of a professional journal, thus facilitating timely submissions for publication. We also encourage formal presentations at professional meetings.

Requirements for Degree

Credit hours: (30): minimum 24 course work hours plus 6 thesis hours (PWS 699R).
Undergraduate hours: no more than 10 semester hours may be applied toward master's degree.
Required courses: PWS 694R (seminar-two semesters). Additional courses as determined by student's advisory committee and approved by department graduate coordinator.
Biannual progress reviews by advisory committee and graduate committee.
Presentation of research prospectus to advisory committee.
Thesis: completion of the thesis in scientific journal format and prepared for journal submission.
Examination: final oral defense of thesis.

Required Tests

GRE

TOEFL or IELTS (International applicants)

Additional Requirements

Baccalaureate degree or equivalent

Resume

Wildlife and Wildlands Conservation (PhD) [282071]

BYU > College of Life Sciences > Department of Plant and Wildlife Sciences > Program

This program emphasizes the scientific method in developing critical thinking and analytical skills applied to conservation and management problems related to wildlife ecology, wildlands, restoration science and/or rangeland/wildland ecology. Depending on the emphasis, advanced training in topic specialties may be complemented by courses in statistics, geographical information systems (GIS), soil sciences, model testing, systematics, or advanced ecology. All emphases require original research topics with the results presented in dissertation format. This research is expected to be of a publication quality and dissertation style best reflecting that of a professional journal, thus facilitating timely submissions for publication. We also encourage formal presentations at professional meetings.

Requirements for Degree

Credit hours: minimum 54 credit hours, including 18 hours of dissertation (PWS 799R).
Students who have earned a master's degree must complete at least 36 credit hours of additional graduate work at BYU beyond the master's degree.
Required courses: PWS 694R (seminar-four semesters). Additional courses as determined by student's advisory committee and approved by department graduate coordinator.
Two consecutive six-hour semesters on BYU campus to fulfill the doctoral residency requirement.
Biannual progress reviews by advisory committee and graduate committee.
Presentation of research prospectus to advisory committee.
Dissertation: completion of the dissertation in scientific journal format and prepared for journal submission.
Examination: (A) comprehensive oral and written examination; (B) oral defense of dissertation.

Required Tests

GRE

TOEFL or IELTS (International applicants)

Additional Requirements

Baccalaureate degree or equivalent

Resume

Advanced Topics in the Plant and Wildlife Sciences [PWS-598R]

BYU > College of Life Sciences > Department of Plant and Wildlife Sciences > Course

Hours: 1.0-3.0 Credit, ARR Lecture, 0.0 Lab

Analysis and Management of Plant and Animal Populations [PWS-634]

BYU > College of Life Sciences > Department of Plant and Wildlife Sciences > Course

Exposure to common tools for analysis and management of plant and animal populations. Program mark, program distance, movement and home range analysis, point pattern analysis, etc.

Hours: 3.0 Credit, 2.0 Lecture, 3.0 Lab

Analysis of Complex Genomes [PWS-670]

BYU > College of Life Sciences > Department of Plant and Wildlife Sciences > Course

Assembly and analysis of eukaryotic genomes, including the theory underlying and application of commonly used methods. First in a two-course series.

Hours: 3.0 Credit, 2.0 Lecture, 3.0 Lab
Prerequisites: PWS 340 or equivalent.

Aquatic and Terrestrial Biogeochemistry [PWS-505]

BYU > College of Life Sciences > Department of Plant and Wildlife Sciences > Course

An in-depth treatment of global biogeochemical cycles, focusing on cycles of carbon, oxygen, nitrogen, phosphorus, and sulfur in the atmosphere, hydrosphere, and lithosphere. Special attention will be given to the microbial mediated transformations and the impact of human disturbances in terrestrial and aquatic environments.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Biometry and Experimental Design [PWS-633]

BYU > College of Life Sciences > Department of Plant and Wildlife Sciences > Course

The design, analysis, and interpretation of biological research using modern analytical tools and relevant software.

Hours: 3.0 Credit, 2.0 Lecture, 3.0 Lab
Prerequisites: Stat 121 or 510 or equivalent.

Comparative Genomics [PWS-672]

BYU > College of Life Sciences > Department of Plant and Wildlife Sciences > Course

Analysis and interpretation of eukaryotic genomes in a comparative context. Theory behind commonly used methods for comparing whole genomes, such as read alignment, whole genome alignment, orthology prediction, variant calling, detection of positive selection, and phylogenomic analysis. Second of a two-course series.

Hours: 3.0 Credit, 2.0 Lecture, 3.0 Lab
Prerequisites: PWS 670.

Conservation of Mega and Meso Carnivores [PWS-629]

BYU > College of Life Sciences > Department of Plant and Wildlife Sciences > Course

Life histories of representative carnivores with political, popular, and managerial problems surrounding their existing and proposed conservation.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Cytogenetics [PWS-673R]

BYU > College of Life Sciences > Department of Plant and Wildlife Sciences > Course

Chromosome structure and function; classical and molecular cytological methods of chromosome and genome analysis.

Hours: 3.0 Credit, 2.0 Lecture, 3.0 Lab
Prerequisites: PWS 340, 485; or equivalents.

Doctoral Dissertation [PWS-799R]

BYU > College of Life Sciences > Department of Plant and Wildlife Sciences > Course

Hours: 1.0-9.0 Credit, Arr. Lecture, Arr. Lab

Environmental Biophysics: Soil and Plant Water Relations [PWS-511]

BYU > College of Life Sciences > Department of Plant and Wildlife Sciences > Course

Integrating biological, physical, and chemical processes of water and solute movements through the soil-plant-atmosphere continuum.

Hours: 4.0 Credit, 3.0 Lecture, 2.0 Lab
Prerequisites: Phscs 105 and PWS 282; or equivalents.

Environmental Field Instrumentation [PWS-513]

BYU > College of Life Sciences > Department of Plant and Wildlife Sciences > Course

Hands-on course and lab teaching students how to use instrumentation in the field and in controlled settings to measure key environmental parameters. Learning the physical principles underlying sensors.

Hours: 4.0 Credit, 3.0 Lecture, 2.0 Lab
Prerequisites: Phscs 105 and PWS 282; or equivalents.

Environmental Site Evaluation and Analysis [PWS-660]

BYU > College of Life Sciences > Department of Plant and Wildlife Sciences > Course

Sampling, analyzing, and interpretation of plant, water, and soil matrixes in native, agricultural, and urban sites. Emphasis on completing Environmental Site Assessments.

Hours: 2.0 Credit, 1.0 Lecture, 2.0 Lab
Prerequisites: PWS 282 & 283; PWS 405 or 406; or equivalents.

Master's Project [PWS-698R]

BYU > College of Life Sciences > Department of Plant and Wildlife Sciences > Course

Hours: 1.0-6.0 Credit, ARR Lecture, 0.0 Lab

Master's Thesis [PWS-699R]

BYU > College of Life Sciences > Department of Plant and Wildlife Sciences > Course

Hours: 1.0-9.0 Credit, ARR Lecture, 0.0 Lab

Metagenomics [PWS-588]

BYU > College of Life Sciences > Department of Plant and Wildlife Sciences > Course

Introduction to comparative and fuctional analysis of genomic and metagenomic datasets, including microbial functions that affect host health. Analyzing existing and novel datasets with field-standard techniques.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Introductory coding and mommand-line experience (e.g. Bio 664 for grad students or seek instructor's consent); strongly recommend Bio/MMBio/PWS 468 or corresponding graduate sections.

Molecular Plant Breeding [PWS-559]

BYU > College of Life Sciences > Department of Plant and Wildlife Sciences > Course

Molecular genetics methods applied to improvement of economically important plants. Theory and methods of plant transformations.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: PWS 265, 340, 485, 586, PDBio 360; or equivalents; PWS 494R or concurrent enrollment.

Plant Cell Biology [PWS-586]

BYU > College of Life Sciences > Department of Plant and Wildlife Sciences > Course

Molecular aspects of the structural and functional characteristics of plant cells, emphasizing characteristics of plant cells setting them apart from animal cells.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: PDBio 360, PWS 340, 440; or equivalents.

Plant Cytogenetics [PWS-673R]

BYU > College of Life Sciences > Department of Plant and Wildlife Sciences > Course

Hours: 3.0 Credit, 2.0 Lecture, 3.0 Lab
Prerequisites: PWS 340, 485; or equivalents.

Plant Pathology [PWS-575]

BYU > College of Life Sciences > Department of Plant and Wildlife Sciences > Course

Concepts associated with symptoms, development, control, and classification of plant diseases. Identification and classification of plant fungi, bacteria, and viruses.

Hours: 3.0 Credit, 2.0 Lecture, 3.0 Lab
Prerequisites: PWS 100 or equivalent.

Plant Response to the Environment [PWS-540]

BYU > College of Life Sciences > Department of Plant and Wildlife Sciences > Course

Advanced plant physiological ecology principles.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: PWS 440 or equivalent; PWS 494R or concurrent enrollment.

Quantitative Ecology [PWS-551]

BYU > College of Life Sciences > Department of Plant and Wildlife Sciences > Course

Quantitative methods for ecological sampling and data analysis.

Hours: 3.0 Credit, 2.0 Lecture, 3.0 Lab
Prerequisites: Bio 350 or equivalent; Stat 121 or 511 or concurrent enrollment.

Quantitative Environmental Chemistry [PWS-560]

BYU > College of Life Sciences > Department of Plant and Wildlife Sciences > Course

Laboratory chemical analysis of soils and plant materials in soil and plant research.

Hours: 2.0 Credit, 1.0 Lecture, 3.0 Lab
Prerequisites: Chem 105, 106, 107; or equivalent.

Rangeland Landscape Ecology and Geographic Information Systems [PWS-512]

BYU > College of Life Sciences > Department of Plant and Wildlife Sciences > Course

Applying landscape ecology theory to evaluate, describe, and predict spatial patterns and processes within rangeland ecosystems using geographic information systems (GIS), remote sensing, and global positioning systems (GPS).

Hours: 3.0 Credit, 2.0 Lecture, 3.0 Lab

Research [PWS-697R]

BYU > College of Life Sciences > Department of Plant and Wildlife Sciences > Course

Hours: 1.0-9.0 Credit, ARR Lecture, 0.0 Lab

Restoration Ecology [PWS-553]

BYU > College of Life Sciences > Department of Plant and Wildlife Sciences > Course

Nature of ecosystem disturbance and plant succession; developing science and practice of ecological restoration; case studies of applied restoration.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: PWS 282, 416; Bio 350; or equivalents.

Saline and Sodic Soils [PWS-520]

BYU > College of Life Sciences > Department of Plant and Wildlife Sciences > Course

Physical and chemical properties of saline and sodic soils and irrigation waters--their diagnosis, reclamation, and management for sustainable crop production.

Hours: 3.0 Credit, 2.0 Lecture, 3.0 Lab
Prerequisites: PWS 305, Chem 105, 106, 107; or equivalents.

Seminar [PWS-694R]

BYU > College of Life Sciences > Department of Plant and Wildlife Sciences > Course

Hours: 1.0 Credit, 1.0 Lecture, 0.0 Lab

Soil Microbiology [PWS-514]

BYU > College of Life Sciences > Department of Plant and Wildlife Sciences > Course

Ecology and role of soil microorganisms in biogeochemical cycles, decomposition of organic matter and waste materials, and bioremediation of contaminated soils and water.

Hours: 2.0 Credit, 2.0 Lecture, 0.0 Lab
Prerequisites: Chem 105 and 106; or equivalents.

Ungulate Conservation and Management [PWS-547]

BYU > College of Life Sciences > Department of Plant and Wildlife Sciences > Course

Integrating principles of natural history, population ecology, behavior, and conservation biology of North American ungulates. Special emphasis on management and conservation applications.

Hours: 2.0 Credit, 2.0 Lecture, 0.0 Lab
Prerequisites: PWS or Bio 350; and Bio 447; or equivalents.

Wildlife Behavioral Ecology [PWS-554]

BYU > College of Life Sciences > Department of Plant and Wildlife Sciences > Course

Integrating principles of ethology, sociobiology, and behavioral ecology using examples from wildlife resources; behavioral sampling methods.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Bio 100, 350; or equivalents.

Aanderud, Zachary Thomas

BYU > College of Life Sciences > Department of Plant and Wildlife Sciences > Faculty

Associate Professor
Plant and Wildlife Sciences
PhD, University of California, Davis, 2006
Research Interest: Microbial and Ecosystem Ecology

Abbott, Benjamin Walter

BYU > College of Life Sciences > Department of Plant and Wildlife Sciences > Faculty

Assistant Professor
Plant and Wildlife Sciences
PhD, University of Alaska Fairbanks, 2014

Allen, Phil S

Professor
Plant and Wildlife Sciences
PhD, University of Minnesota, 1990
Research Interest: Seed Biology; Ecological Restoration

Anderson, Val Jo

Professor
Plant and Wildlife Sciences
PhD, Texas A&M University, 1988
Research Interest: Range Ecology; Ecophysiology

Chaston, John M

Assistant Professor
Plant and Wildlife Sciences
PhD

Coleman, Craig Eliot

Associate Professor
Plant and Wildlife Sciences
PhD, Pennsylvania State University, 1992
Research Interest: Genetics and Biotechnology

Flinders, Loreen Allphin

Associate Professor
Plant and Wildlife Sciences
PhD, University of Utah, 1996
Research Interest: Plant Ecology; Plant Reproductive Biology; Conservation Genetics

Geary, Bradley Dale

Professor
Plant and Wildlife Sciences
PhD, Washington State University, 1999
Research Interest: Plant Pathology; Plant Pest Management

Hansen, Neil C

Professor
Plant and Wildlife Sciences
PhD, University of Minnesota, 1998
Research Interest: Water and Soil Resources

Hopkins, Bryan G

Professor
Plant and Wildlife Sciences
PhD, Kansas State University, 1995
Research Interest: Plant and Soil Sciences

Jarvis, David

Assistant Professor
Plant and Wildlife Sciences
PhD, University of Arizona, 2014

Jellen, Eric N

Associate Professor
Plant and Wildlife Sciences
PhD, University of Minnesota, 1992
Research Interest: Cytogenetics; Genetic Mapping; Plant Genetic Resource Conservation

Larsen, Randy T

Associate Professor
Plant and Wildlife Sciences
PhD, Utah State University, 2008
Research Interest: Wildlife Ecology and Management

Madsen, Matthew D

Assistant Professor
Plant and Wildlife Sciences
PhD, Brigham Young University, 2010
Research Interest: Wildlife & Wildland Conservation

Maughan, Peter J

Professor
Plant and Wildlife Sciences
PhD, Virginia Polytechnic Institute & State University, 1996
Research Interest: Plant Genetics

McMillan, Brock R

Professor
Plant and Wildlife Sciences
PhD, Kansas State University, 1999
Research Interest: Population and Community Ecology of Mammals and Birds

Petersen, Steven L

BYU > College of Life Sciences > Department of Plant and Wildlife Sciences > Faculty

Associate Professor
Plant and Wildlife Sciences
PhD, Oregon State University, 2004
Research Interest: Landscape Ecology

Robinson, Todd Fergus

BYU > College of Life Sciences > Department of Plant and Wildlife Sciences > Faculty

Associate Professor
Plant and Wildlife Sciences
PhD, Cornell University, 1998
Research Interest: Growth Biology; Metabolic Processes

Smith, Thomas Scott

BYU > College of Life Sciences > Department of Plant and Wildlife Sciences > Faculty

Associate Professor
Plant and Wildlife Sciences
PhD, Brigham Young University, 1992
Research Interest: Wildlife Ecology; Wildlife-Human Interactions; Wildlife Management and Ecology

St Clair, Samuel B

BYU > College of Life Sciences > Department of Plant and Wildlife Sciences > Faculty

Associate Professor
Plant and Wildlife Sciences
PhD, Pennsylvania State University, 2004
Research Interest: Plant Physiological Ecology

Stevens, Mikel R

BYU > College of Life Sciences > Department of Plant and Wildlife Sciences > Faculty

Professor
Plant and Wildlife Sciences
PhD, University of Arkansas, 1993
Research Interest: Plant Breeding; Molecular Genetics

Stewart, J Ryan

BYU > College of Life Sciences > Department of Plant and Wildlife Sciences > Faculty

Associate Professor
Plant and Wildlife Sciences
PhD, Iowa State University, 2005
Research Interest: Plant Ecophysiology; Bioenergy

Department of Psychology

BYU > College of Family, Home, and Social Sciences > Department

Address

Psychology

1097 KMBL, Provo, UT 84602-5543
801-422-4560
Erin_daniel@byu.edu

Programs

- Psychology [735498]
- Psychology [735497]
- Psychology - Clinical [735460]

The mission of the Psychology Department is to discover, disseminate, and apply principles of psychology within a scholarly framework that is compatible with the values and purposes of Brigham Young University and its sponsor.

Two degrees are offered through the Department of Psychology: Psychology-PhD and Clinical Psychology-PhD.

Students are selected after careful consideration of their application, GPA, GRE general test scores, letters of recommendation, and areas of academic interest. The PhD program is designed to be completed in four years and the Clinical PhD program in five years (including a one-year internship).

For more detailed information regarding the Psychology PhD program, click here: https://psychology.byu.edu/Pages/PsychPhD.aspx

For more detailed information regarding the Clinical Psychology PhD program, click here: https://psychology.byu.edu/Pages/ClinicalPhD.aspx

Psychology - Clinical-MS

The Master of Science degree in Clinical Psychology is an embedded degree within the Clinical Psychology PhD training program. Students are admitted to BYU's Clinical Psychology doctoral program with the expectation that they will complete the PhD degree and no students are independently admitted to the Master of Science Degree. Please see the Clinical Psychology PhD description for full accreditation and program details.

Chair: Gary Burlingame
Director of Clinical Training: Patrick R. Steffen
Associate Chair/Graduate Coordinator: Niwako Yamawaki
Associate Chair/Faculty: Michael J. Larson
Executive Coordinator of Clinical Psychology: Elizabeth Norton

Resources & Opportunity

Comprehensive Clinic. This clinic is a unique interdisciplinary training and research facility housing audiovisual and computer resources and a staff of skilled technicians and secretaries to support graduate student and faculty research. The clinic currently functions as an APA-approved practicum site for the Clinical Psychology PhD program. In addition, the clinic provides the university and the broader community with mental health services, with 200 to 250 clients seen each week by students in the graduate programs. The clinic contains nine counseling rooms, four seminar rooms, and one large classroom, all of which are equipped with digital/video recording capabilities.

Externship Opportunities. In addition to practicum experiences in the Comprehensive Clinic, the clinical program arranges a number of reimbursed training placements in community agencies as well as two required unpaid clerkship experiences, including such sites as Utah State Hospital, private practices, medical centers, government agencies, residential treatment facilities, and university counseling centers. These clerkships and externships are arranged and managed by the externship coordinator and the director of clinical training, and they are supervised by on-site licensed professionals. At present, clerkships and externships are available in more than 25 different settings. These opportunities provide an excellent foundation for the integration of classroom experiences with practical work applications.

Family, Home, and Social Sciences Computing Center. The center assists faculty and students with data processing and other computing needs on mainframe and personal computers. Technical support and consultation services for both statistics and graphics are available to students working on research projects, theses, and dissertations. Special computer facilities in the Psychology Department support research in psycholinguistics, neuroimaging, neurophysiology, social psychology, and the experimental analysis of human and animal behavior.

The FHSS College also provides additional research and academic support through the Camilla Eyring Kimball Chair; the Marjorie Pay Hinckley Chair; and the Mary Lou Fulton Chair.

Magnetic Resonance Imaging Research Facility. The structural and functional neuroimaging core is located at the BYU Magnetic Resonance Imaging Research Facility (MRIRF), which houses a 3T Siemens TRIO MRI scanner. The MRI scanner is equipped with a 12- and 32-channel head coil and MR-compatible audio and video stimulus delivery systems. Additionally, the Facility has an MR-compatible EEG system for simultaneous recording of both functional MRI and electrophysiology data, and an MR-compatible eye-tracker for recording eye movements during MRI scanning. Behavioral responses can be recorded with an MR-compatible button box (with 4 or 8 response options) or trackball. The MRI Research Facility also houses a coil lab for the development of custom coils and a computer lab with computers dedicated to MRI data post-processing. The center assists faculty and students with studies that use magnetic resonance imaging. Technical support, classes and consultation are available for student's working on research projects, theses, dissertations. The MRIRF offers tools for the de-identification of human subject's data.

Financial Assistance

Departmental financial aid is available in various forms: teaching and research assistantships, student instructorships, and tuition stipends.

Psychology (MS) [735498]

BYU > College of Family, Home, and Social Sciences > Department of Psychology > Program

Psychology - MS

The Master of Science degree in Psychology is an embedded degree within the Clinical Psychology PhD training program. Students are admitted to BYU's Clinical Psychology doctoral program with the expectation that they will complete the PhD degree and no students are independently admitted to the Master of Science Degree. Please see the Clinical Psychology PhD description for full accreditation details.

Psychology - (MS) program requirements:

Students must demonstrate competence in various areas to receive the Psychology MS and continue to the Clinical Psychology PhD program. The master's curriculum corresponds to the first two years of training following receipt of the bachelor's degree and consists of required courses in the foundations of psychological evaluation and measurement, statistics and research methods, professional ethics, and clinical theory and practice. Students have three years to complete their master's degree requirements after admission to the Clinical Psychology PhD program and are not allowed to enroll in doctoral level courses during their fourth year of residence if these requirements have not been met.

Specific requirements of the MS Degree are detailed below:

> Credit hours (36 hour minimum; B grade or better in each class)
> Research data and analysis requirement: 11 hours of statistics and research methodology (Psych 501, 502, and 504)
> Clinical theory requirement: 3 hours of professional and ethical issues (Psych 609); 4 hours of psychopathology (Psych 611); 6 hours of assessment (Psych 622 and 623); and 6 hours of psychotherapy (Psych 651 and one of Psych 652 OR Psych 653).
> Master's thesis: Students will complete a master's thesis that includes no fewer than 6 thesis credit hours (Psych 699R). As noted above, students have three years to complete their degree requirements, including the thesis, and are not allowed to enroll in doctoral level courses during their fourth year of residence if these requirements have not been met.

Required Tests

GRE general test

Additional Requirements

1. Resume is required inside the application

2. Please indicate in the application a faculty mentor whose research program is most closely aligned with your career goals. You will have the ability to specify up to three potential faculty mentors in the application.

Psychology (PhD) [735497]

BYU > College of Family, Home, and Social Sciences > Department of Psychology > Program

The doctoral program in psychology offers a rigorous educational experience leading to the PhD degree. The first four semesters of the program are designed to provide broad acquaintance with the substantive areas of the discipline, training in research skills, and introduction to the particular areas of emphasis offered in the program. During the last two years students will pursue specialized course work and training in one of three main emphasis areas: (1) Applied Social Psychology or (2) Cognitive and Behavioral Neuroscience or (3) Developmental Psychology, and a sub-specialty of Health Psychology. Students across the three emphasis areas may elect to complete a cross-area emphasis in Health Psychology.

Applicants should designate one or more potential faculty mentors in their application. By the end of the first semester, all students will have submitted a Program of Study form with the selection of a chair and two other members, each having graduate faculty status, as their dissertation committee. They should begin course work and research in their selected emphasis area in consultation with the dissertation committee chair.

Second Year Project

During fall semester of the first year, the Second Year Project is conceptualize and research begins. A *Second-Year Research Project Definition Form, with a 250*-word abstract attached, is submitted to the three inside members of the dissertation committee, (thesis committee for Clinical Psychology students), for approval no later than the last day of the fall semester. If this is not accomplished, the student will receive a marginal rating for that semester.

During fall semester of the second year, the second-year project will culminate in a written manuscript submitted for review, no later than the last day of class, to the committee chair.

The revised written manuscript is then submitted no later than the end of the first week of winter semester of the second year to the three inside committee members of the student's dissertation committee, (thesis committee for Clinical Psychology students). Recommendations for revisions will be made as determined by the committee. Their recommendations will be returned to the student no later than January 31st, so the student can begin work on the February poster presentation. If the manuscript is not submitted to the committee by the deadline, the student will receive a marginal rating for fall semester.

If the manuscript is not completed by the end of the student's second winter semester, an unsatisfactory for winter semester will be given, constituting the second consecutive less-than-satisfactory rating. Two consecutive less-than-satisfactory ratings will result in the student's dismissal from the program. A petition for exception may be considered by Graduate Studies, but is granted only on rare occasions.

If the student fails to meet the deadline, but submits the manuscript at a later point during the winter semester, the Committee's review would then take place during the spring term - but the student's presentation nevertheless would still occur during the winter semester.

Comprehensive Exam

Students will complete a comprehensive examination prior to the fall semester in their third year (i.e., prior to the 5th full semester in the program). The purpose of the comprehensive examination is to test the student's knowledge of psychological science within multiple content areas. Accordingly, the comprehensive examination will consist of three items - one from the content area of Research Design & Analysis, one from the student's area of specialization (Developmental, Applied Social, or Cognitive/Behavioral Neuroscience), and a third from one of the remaining areas (Developmental, Applied Social, or Cognitive/Behavioral Neuroscience) as selected by the student.

The exam will be administered on a pre-specified day in August in the second year of study, prior to the beginning of fall semester and the third year of study.

Within the first month (September) of the fall semester following the exam, the examination committee will grade the three exam items. Each will be graded Pass/Fail and the composite grade will be determined as follows:

> **Three Pass grades: Pass**
> **One or two Fail grades: Required Remediation.**
> **Three Fail grades: Fail. The student must retake an alternative comprehensive examination the following semester (i.e., the winter semester).**

Students who do not pass the August exam will receive a "marginal" evaluation for the fall semester. Those who are required to take the alternative comprehensive exam, must do so by the end of the following winter semester. A student who does not receive the Pass grade on the alternative exam will receive an "unsatisfactory" evaluation for the winter term.

Once students have completed the comprehensive examination and defended their dissertation prospectus, they will continue to PhD candidacy.

Requirements for Degree.

> **Credit hours (55): Minimum 37 hours of course work plus 18 dissertation hours (799R).**
> **Required core courses (31 credit hours): B grade or better in Psych 501, 502, 504, 520, 550, 575, 585, 605R (4 semesters), Advanced Seminar (620R, 650R, or 685R) (6 semesters), Advanced Topic (720R, 750R, or 785R).**

Elective Advanced Topic classes for each emphasis area are: Psych 720R (Advanced Topic in Developmental Psychology) for Developmental Psychology, Psych 750R (Advanced Topic in Social Psychology) for Applied Social Psychology, and Psych 785R (Advanced Topic in Behavioral Neurobiology) for Cognitive and Behavioral Neurosciences.

Emphasis area requirements and electives (6 credit hours). The required classes for each emphasis area are: Psych 552 (Applied Social Psychology) for Applied Social Psychology, Psych 687R (Seminar in Psychopharmacology) for Cognitive and Behavioral Neuroscience and Psych 626 (Advanced Biological Basis of Development) for Developmental Psychology.

Recommended sequence of program requirements:

First Year: **Fall - Psych 501, 550, 605R, Area Advanced Seminar (620R, 650R, or 686R), 799R (1 credit); Winter - Psych 504, 585, 605R, Area Advanced Seminar (620R, 650R, or 685R), 799R (2 credits); Spring - Psych 693 (taught annually only during spring term), Area Advanced Topic (720R, 750R, or 785R).**

Second Year: **Fall - Psych 502, 575, 605R, Area Advanced Seminar (620R, 650R, or 685R), required area emphasis course (552, 626, or 687R) or 1 elective, Winter - Psych 520, 605R, Area Advanced Seminar (620R, 650R, or 685R), required area emphasis course (552, 626, or 687R) or 1 elective. Students are required to complete a second year project. Spring-Psych 799R (2 credits). Students will complete a Comprehensive Exam in August, prior to 5th fall semester of the program.**

Third Year: **Fall-Area Advanced Seminar (620R, 650R, or 685R), Psych 799R (1.5 credits); Winter - Area Advanced Seminar (620R, 650R, or 685R), 799R (2 credits); Spring - Psych 799R (2 credits).Take any additional course work selected in consultation with the dissertation committee chair. Submit and defend a dissertation prospectus and begin dissertation research in consultation with the dissertation committee chair.**

Fourth Year: **Fall - Psych 799R (2 credits); Winter - Psych 799R (2 credits); Spring - Psych 799R (2 credits).Complete any remaining courses, complete dissertation research, and author and defend the dissertation. Students must complete 18 hours of dissertation credit (Psych 799R) as part of the dissertation requirement.**

Dissertation: By summer term in their fourth year, students should complete and defend a dissertation in their chosen emphasis area (including a manuscript suitable for submission for publication that is appended to the dissertation). All students should graduate no later than August of their fourth year in the program.

Cross-Area Health Psychology Emphasis Description

The BYU doctoral programs in psychology are pleased to offer a cross-area emphasis program to provide training in health psychology. Health psychology is a growing sub-specialty focused on understanding connections between psychological processes and physical health. Health psychologists conduct research and provide clinical care to promote optimal physical and mental health. The emphasis area represents a course of study common to both the Psychology PhD program and the Clinical Psychology PhD program (with exception of clinical training requirements). Students who choose to pursue this emphasis retain primary affiliation in their selected department area (e.g., clinical, social, developmental, behavioral neuro) but pursue additional coursework, practicum experiences, and research topics that will enhance their preparation for careers in health psychology.

Health Psychology Emphasis Requirements

In addition to standard PhD requirements, students will be required to complete the following courses (8 credits):

Psych 583 Health Psychology (3 credits)

Psych 686R Seminar in Health Psychology (3 credits)

Psych 605R Professional Seminar in Psychology (0.5 credits/semester for 4 semesters) ***or*** **Psych 740R Clinical Case Conference (0.5 credits/semester for 4 semesters)**

Additionally, students will be required to complete two of the following elective courses (minimum of 4 credits). Elective courses are selected through consultation with faculty mentors:

Psych 552 Applied Social Psychology

Psych 680 Clinical Neuropsychology

Psych 687R Seminar in Psychopharmacology

Psych 712R Seminar in Neuroanatomy

HLTH 608 Determinants of Health Behavior

HLTH 612 Program Planning and Evaluation

HLTH 619 Infectious and Chronic Disease Prevention and Control

HLTH 630 Small-group Health Promotion Interventions

Students pursuing the Clinical Psychology PhD are also required to complete the following practicum courses (already required as part of the Clinical PhD curriculum) in relevant training settings (e.g., health-related practica):

Psych 743R Clerkship (one or more in emphasis area)

Psych 700R Externship (one or more in emphasis area)

All students completing the emphasis will be expected to engage in health psychology research commensurate with expectations for research or scientist/practitioner careers. Students completing the Health Psychology Emphasis must select a dissertation topic related to health psychology. Emphasis area faculty will be responsible for assessing acceptability of the dissertation topic.

Required Tests

GRE General Test

Additional Requirements

1. Resume is required inside the application

2. Please indicate in the application a faculty mentor whose research program is most closely aligned with your career goals. You will have the ability to specify up to three potential faculty mentors in the application.

Psychology - Clinical (PhD) [735460]

The clinical psychology training program at Brigham Young University leads to the PhD degree and is fully accredited by the Commission on Accreditation. (Information on accreditation can be obtained from the Commission on Accreditation, 202-336-5979, or the Office of Program Consultation and Accreditation, American Psychological Association, 750 First Street, NE Washington, DC 20002-4242, or at www.apa.org/ed/accreditation/.) This program is designed to be completed in five years, including a one-year, full-time internship at an approved agency. Candidates with varied backgrounds who have strong academic and clinical promise are encouraged to apply.

The philosophy of the clinical training program adheres to the scientist-practitioner model. Training focuses on academic and research competence as well as theory and practicum experience necessary to develop strong clinical skills.

The program at Brigham Young University is eclectic in its theoretical approach, drawing from a wide range of theories and orientations in an attempt to give broad exposure to a diversity of traditional and innovative, empirically-supported approaches. Cognitive-behavioral and behavioral approaches are well-represented, in addition to interpersonal (including psychodynamic and objects relations), family systems, emotion-focused, mindfulness-based and compassion-focused orientations. All students receive a basic core of training in adult clinical psychology. They may also elect to take a special emphasis in (1) Child, Adolescent, and Family Clinical Psychology, (2) Clinical Neuropsychology, (3) Clinical Research, or (4) Clinical Health Psychology.

Requirements for Degree.

> **The program requires the development of broad competencies described in the *Handbook of Graduate Programs in the Department of Psychology* and the *Practicum Handbook*. Thus, the program is not merely a series of courses and experiences. In addition to the requirements listed below, the student must demonstrate competence to advance through the various phases of the degree program, including the internship and clearance for graduation.**
> **Credit hours (111 minimum; B grade or better in each class).**
> **Research requirements: 8 hours of graduate data analysis (Psych 501, 502); 6 hours of research methodology (Psych 504, 505); 18 hours of dissertation (Psych 799R).**
> **General core courses: 3 hours of biological bases of behavior (Psych 585); 6 hours of social-cultural bases of behavior (Psych 550, 645 or CPSE 751); 3 hours of cognitive-affective bases of behavior (Psych 575); 3 hours of human development (Psych 520); 3 hours of history and systems (Psych 510).**
> **Clinical core courses: 3 hours of ethics and standards (Psych 609); 6 hours of assessment (Psych 622, 623); 12 hours of psychotherapy (Psych 651, 652, 653, 654, 656. Note: 654 is strongly recommended but not required for those in the neuropsychology emphasis area); 4 hours of psychopathology (Psych 611).**
> **Clinical practica: 19 hours of clinic practica (Psych 741R); 2 hours of clerkships (Psych 743R); 3 hours of case conferences (Psych 740R); 3 hours of externships optional but strongly recommended (Psych 700R); 6 hours of internship (Psych 745, 746, 747, and 748).**
> **Emphasis sequences: a sequence of elective courses may be taken in the following emphasis areas: Child, Adolescent, and Family Clinical Psychology; Clinical Neuropsychology; Clinical Research; Clinical Health Psychology.**
> **Master's thesis (Psych 699R; 6 hours).**
> **Dissertation (including a manuscript in a form suitable for submission for publication appended to the dissertation).**
> **Internship: One-year internship in a setting approved by the clinical director.**

Examinations: (a) comprehensive examinations in second and third years; (b) oral defense of master's thesis, prospectus, and dissertation.

For additional information about the program, write or call the secretary or the director of clinical training, 284 TLRB, Provo, UT 84602-8610, telephone (801) 422-4050.

Required Tests

GRE

Additional Requirements

1. Resume is required inside the application

2. Please indicate in the application a faculty mentor whose research program is most closely aligned with your career goals. You will have the ability to specify up to three potential faculty mentors in the application.

Advanced Biological Bases of Development [PSYCH-626]

BYU > College of Family, Home, and Social Sciences > Department of Psychology > Course

An advanced examination of the biological foundations of social, emotional, perceptual, and cognitive development.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Advanced Child Assessment [PSYCH-711R]

BYU > College of Family, Home, and Social Sciences > Department of Psychology > Course

Hours: 0.5-3.0 Credit, ARR Lecture, 0.0 Lab
Prerequisites: Acceptance into clinical psychology program.

Advanced Developmental Psychology [PSYCH-520]

BYU > College of Family, Home, and Social Sciences > Department of Psychology > Course

Major research in developmental psychology, emphasizing theory, content, and methodology.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: or equivalent; or instructor's consent.

Advanced Perceptual and Cognitive Development [PSYCH-628]

BYU > College of Family, Home, and Social Sciences > Department of Psychology > Course

An advanced examination of early perceptual and cognitive development in human infants and young children.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Advanced Seminar in Behavioral Neuroscience [PSYCH-685R]

BYU > College of Family, Home, and Social Sciences > Department of Psychology > Course

Critical examination of recent topics and interests within behavioral neuropsychology.

Hours: 0.5 Credit, 0.5 Lecture, 0.0 Lab
Prerequisites: Acceptance into psychology PhD program.

Advanced Seminar in Developmental Psychology [PSYCH-620R]

BYU > College of Family, Home, and Social Sciences > Department of Psychology > Course

A critical examination of recent topics and interests within developmental psychology.

Hours: 0.5 Credit, 0.5 Lecture, 0.0 Lab
Prerequisites: Acceptance into psychology PhD program.

Advanced Seminar in Social Psychology [PSYCH-650R]

BYU > College of Family, Home, and Social Sciences > Department of Psychology > Course

A critical examination of recent topics and interests within social psychology.

Hours: 0.5 Credit, 0.5 Lecture, 0.0 Lab
Prerequisites: Acceptance into psychology PhD program.

Advanced Social Development [PSYCH-627]

BYU > College of Family, Home, and Social Sciences > Department of Psychology > Course

An advanced examination of early social and emotional development in children, including parent-child and peer relationships as well as the development of social cognition.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Advanced Topics in Behavioral Neuroscience [PSYCH-785R]

BYU > College of Family, Home, and Social Sciences > Department of Psychology > Course

A critical examination of recent topics and interests within behavioral neuroscience.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: instructor's consent.

Advanced Topics in Developmental Psychology [PSYCH-720R]

BYU > College of Family, Home, and Social Sciences > Department of Psychology > Course

A critical examination of recent topics and interests within developmental psychology.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: instructor's consent.

Advanced Topics in Social Psychology [PSYCH-750R]

BYU > College of Family, Home, and Social Sciences > Department of Psychology > Course

A critical examination of recent topics and interests within social psychology.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: instructor's consent.

Applied Social Psychology [PSYCH-552]

BYU > College of Family, Home, and Social Sciences > Department of Psychology > Course

Overview of domains in which social psychological theory and research have been applied in field settings.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: or equivalent; or instructor's consent.

Assessment 1: Intelligence [PSYCH-622]

BYU > College of Family, Home, and Social Sciences > Department of Psychology > Course

Methods used in assessing intellectual status in children and adults.

Hours: 3.0 Credit, 2.0 Lecture, 3.0 Lab
Prerequisites: Acceptance into clinical psychology program.

Assessment 2: Personality [PSYCH-623]

BYU > College of Family, Home, and Social Sciences > Department of Psychology > Course

Methods used in assessing the personality and behavioral characteristics of children and adults.

Hours: 3.0 Credit, 2.0 Lecture, 3.0 Lab
Prerequisites: Acceptance into clinical psychology program.

Biofeedback [PSYCH-711R]

BYU > College of Family, Home, and Social Sciences > Department of Psychology > Course

Hours: 3.0 Credit, 0.0 Lecture, 8.0 Lab
Prerequisites: Acceptance into clinical psychology program.

Case Conference [PSYCH-740R]

BYU > College of Family, Home, and Social Sciences > Department of Psychology > Course

Case presentations; professional, ethical, and research issues pertinent to assessment and intervention.

Hours: 0.5 Credit, 1.0 Lecture, 0.0 Lab
Prerequisites: Acceptance into clinical psychology program.

Clerkship in Clinical Psychology [PSYCH-743R]

BYU > College of Family, Home, and Social Sciences > Department of Psychology > Course

Supervised experience in community agencies.

Hours: 1.0 Credit, 0.0 Lecture, 1.0 Lab
Prerequisites: Acceptance into clinical psychology program.

Clinical Internship [PSYCH-745]

BYU > College of Family, Home, and Social Sciences > Department of Psychology > Course

Full-time training at approved mental health agency.

Hours: 2.0 Credit, 0.0 Lecture, 40.0 Lab
Prerequisites: Acceptance into clinical psychology program.

Clinical Internship [PSYCH-746]

BYU > College of Family, Home, and Social Sciences > Department of Psychology > Course

Full-time training at approved mental health agency.

Hours: 2.0 Credit, 0.0 Lecture, 40.0 Lab
Prerequisites: Acceptance into clinical psychology program.

Clinical Internship [PSYCH-747]

BYU > College of Family, Home, and Social Sciences > Department of Psychology > Course

Full-time training at approved mental health agency.

Hours: 1.0 Credit, 0.0 Lecture, 40.0 Lab
Prerequisites: Acceptance into clinical psychology program.

Clinical Internship [PSYCH-748]

BYU > College of Family, Home, and Social Sciences > Department of Psychology > Course

Full-time training at approved mental health agency.

Hours: 1.0 Credit, 0.0 Lecture, 40.0 Lab
Prerequisites: Acceptance into clinical psychology program.

Clinical Neuropsychology [PSYCH-680]

BYU > College of Family, Home, and Social Sciences > Department of Psychology > Course

Comprehensive study of the human dysfunctional brain.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Acceptance into clinical psychology program.

Clinical Research [PSYCH-505]

BYU > College of Family, Home, and Social Sciences > Department of Psychology > Course

Overview of research examining processes and outcomes of psychological treatments for psychological disorders.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: or instructor's consent.

Cognitive Processes [PSYCH-575]

BYU > College of Family, Home, and Social Sciences > Department of Psychology > Course

Theory and research in perception, attention, language, problem solving, and other thinking processes.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: or equivalents; or instructor's consent.

Computational Neuroimaging Analysis [PSYCH-514]

BYU > College of Family, Home, and Social Sciences > Department of Psychology > Course

Development of skills in basic command line operations in the Unix environment that are specific to neuroimaging design and analysis.

Hours: 1.0 Credit, 0.0 Lecture, 1.0 Lab

Cultural Diversity and Gender Issues [PSYCH-645]

BYU > College of Family, Home, and Social Sciences > Department of Psychology > Course

Clinical issues in the context of cultural diversity and contemporary social trends.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Data Analysis in Psychological Research 1 [PSYCH-501]

BYU > College of Family, Home, and Social Sciences > Department of Psychology > Course

Using and interpreting major quantitative methods in psychology; some commonly used computer methods.

Hours: 3.0 Credit, 2.0 Lecture, 1.0 Lab
Prerequisites: or instructor's consent.

Data Analysis in Psychological Research 2 [PSYCH-502]

BYU > College of Family, Home, and Social Sciences > Department of Psychology > Course

Introduction to multivariate data analysis methods, including multivariate analysis of variance, factor analysis, discriminant analysis, multivariate multiple regression, canonical correlation, structural equations modeling, cluster analysis, etc.

Hours: 3.0 Credit, 2.0 Lecture, 1.0 Lab
Prerequisites: or instructor's consent.

Developmental Psychopathology [PSYCH-612]

BYU > College of Family, Home, and Social Sciences > Department of Psychology > Course

Advanced study of etiology, diagnosis, prevalence, associated features, and theories of psychological and developmental disorders in children and adolescents.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Acceptance into clinical psychology program.

Doctoral Dissertation [PSYCH-799R]

BYU > College of Family, Home, and Social Sciences > Department of Psychology > Course

Concluding research for doctoral program, culminating in final oral examination.

Hours: 0.5-9.0 Credit, ARR Lecture, ARR Lab

Externship in Clinical Psychology [PSYCH-700R]

BYU > College of Family, Home, and Social Sciences > Department of Psychology > Course

Supervised reimbursed experience in community agencies.

Hours: 0.5 Credit, 0.0 Lecture, ARR Lab

Forensic [PSYCH-711R]

BYU > College of Family, Home, and Social Sciences > Department of Psychology > Course

Hours: 3.0 Credit, 0.0 Lecture, 8.0 Lab
Prerequisites: Acceptance into clinical psychology program.

Health Psychology [PSYCH-583]

BYU > College of Family, Home, and Social Sciences > Department of Psychology > Course

In-depth examination of behavior from perspective of health and disease

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: or equivalents; or instructor's consent.

History and Systems of Psychology [PSYCH-510]

BYU > College of Family, Home, and Social Sciences > Department of Psychology > Course

Survey of origins and development of modern psychology, including consideration of the schools and theoretical systems.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: or equivalent; or instructor's consent.

Human Neuropsychology/Biological Bases of Behavior [PSYCH-585]

BYU > College of Family, Home, and Social Sciences > Department of Psychology > Course

Critical study of brain-behavior relationships.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: or equivalents; or instructor's consent.

Independent Readings [PSYCH-695R]

BYU > College of Family, Home, and Social Sciences > Department of Psychology > Course

Faculty-supervised readings as arranged by student.

Hours: 0.5-3.0 Credit, ARR Lecture, ARR Lab
Prerequisites: Instructor's consent.

Independent Research [PSYCH-697R]

BYU > College of Family, Home, and Social Sciences > Department of Psychology > Course

Faculty-supervised research as arranged by student.

Hours: 0.5-4.0 Credit, 0.0 Lecture, 12.0 Lab
Prerequisites: Instructor's consent.

Integrative Practicum [PSYCH-741R]

BYU > College of Family, Home, and Social Sciences > Department of Psychology > Course

Supervised assessment and intervention, integrating psychopathology diagnosis and treatment.

Hours: 0.5-3.0 Credit, 0.0 Lecture, 6.0 Lab
Prerequisites: Acceptance into clinical psychology program.

Learning Theory [PSYCH-560]

BYU > College of Family, Home, and Social Sciences > Department of Psychology > Course

Critical review of current theories and persistent issues.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: or equivalent; or instructor's consent.

Master's Thesis [PSYCH-699R]

BYU > College of Family, Home, and Social Sciences > Department of Psychology > Course

Concluding research for master's program, culminating in final oral examination.

Hours: 0.5-9.0 Credit, ARR Lecture, ARR Lab

Mindfulness & Psychotherapy [PSYCH-656]

BYU > College of Family, Home, and Social Sciences > Department of Psychology > Course

Fundamentals of mindfulness practices; mindfulness-based interventions in psychotherapy. The course has three primary objectives: 1) help students develop competencies in core mindfulness practices; 2) enhance student mindfulness-related "microskills" in therapy, 3) provide students with a deeper exposure to the various interventions with strong mindfulness components.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

MMPI [PSYCH-711R]

BYU > College of Family, Home, and Social Sciences > Department of Psychology > Course

Hours: 3.0 Credit, 0.0 Lecture, 8.0 Lab
Prerequisites: Acceptance into clinical psychology program.

Motivational Psychology [PSYCH-565]

BYU > College of Family, Home, and Social Sciences > Department of Psychology > Course

Theoretical, historical, and empirical overview; recent trends and issues; role of animal studies; methodological issues.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: or equivalent; or instructor's consent.

Neuro Case Conference [PSYCH-740R]

BYU > College of Family, Home, and Social Sciences > Department of Psychology > Course

Neuropsychological emphasis of case presentations; professional, ethical, and research issues pertinent to assessment and intervention.

Hours: 1.0-5.0 Credit, Arr Lecture, Arr Lab

Neuroimaging Analysis 1: Structural Imaging [PSYCH-515]

BYU > College of Family, Home, and Social Sciences > Department of Psychology > Course

Exposure to the physical and biological bases of image acquisition, the technologies of in vivo neuroimaging, the application of these technologies to understanding questions in neuroscience, and an introduction to the design and analysis of structural neuroimaging experiments.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: PSYCH 514 (can be taken concurrently), or instructor's consent.

Neuroimaging Analysis 2: Diffusion Weighted Imaging [PSYCH-516]

BYU > College of Family, Home, and Social Sciences > Department of Psychology > Course

The principles of diffusion weighted image acquisition and how to design, analyze, and interpret diffusion tensor imaging experiments.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Psych 514 (can be taken concurrently) and Psych 515. Or instructor's consent.

Neuroimaging Analysis 3: fMRI [PSYCH-517]

BYU > College of Family, Home, and Social Sciences > Department of Psychology > Course

Functional MRI experimental design and data analysis methods.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Psych 514, 515, and 516. Or, instructor's consent.

Neuropsychology Assessment: Adult [PSYCH-712R]

BYU > College of Family, Home, and Social Sciences > Department of Psychology > Course

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Acceptance into clinical psychology program.

Neuropsychology Assessment: Child [PSYCH-712R]

BYU > College of Family, Home, and Social Sciences > Department of Psychology > Course

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Acceptance into clinical psychology program.

Organizational Psychology [PSYCH-531]

BYU > College of Family, Home, and Social Sciences > Department of Psychology > Course

Personal and interpersonal aspects of organizational life: goal setting, decision making, problem solving, communication, control, leadership, motivation, and change.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: or equivalent; or instructor's consent.

Personality Theory [PSYCH-540]

BYU > College of Family, Home, and Social Sciences > Department of Psychology > Course

Contemporary theories of personality developed within the framework of major psychological systems.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: or equivalent; or instructor's consent.

Philosophy of Science for the Social Sciences [PSYCH-511]

BYU > College of Family, Home, and Social Sciences > Department of Psychology > Course

Issues in philosophy of science as they apply to social sciences, including methods, epistemology, and construction of knowledge.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Instructor's consent or admission to PhD program.

Professional and Ethical Issues in Psychology [PSYCH-609]

BYU > College of Family, Home, and Social Sciences > Department of Psychology > Course

Ethical issues in professional and scientific psychology from a historical and contemporary framework.

Hours: 1.0-3.0 Credit, Arr Lecture, Arr Lab
Prerequisites: Acceptance into psychology PhD program or clinical psychology PhD program.

Professional Seminar in Psychology [PSYCH-605R]

BYU > College of Family, Home, and Social Sciences > Department of Psychology > Course

Assessing current research across all domains of psychology and related fields; providing communication and career-seeking skills.

Hours: 1.0 Credit, 1.0 Lecture, 0.0 Lab
Prerequisites: Acceptance into Ph.D. program.

Psychopathology [PSYCH-611]

BYU > College of Family, Home, and Social Sciences > Department of Psychology > Course

Diagnosis and etiology of mental and emotional disorders in children and adults.

Hours: 4.0 Credit, 4.0 Lecture, 2.0 Lab
Prerequisites: Acceptance into clinical psychology program.

Psychotherapy 1: Relationship and Psychodynamic [PSYCH-651]

BYU > College of Family, Home, and Social Sciences > Department of Psychology > Course

Theory and techniques employed in psychotherapy that focus on relationship and psychodynamic approaches.

Hours: 3.0 Credit, 3.0 Lecture, 2.0 Lab
Prerequisites: Acceptance into clinical psychology program.

Psychotherapy 2: Cognitive - Behavioral [PSYCH-652]

BYU > College of Family, Home, and Social Sciences > Department of Psychology > Course

Theory, treatment principles, and techniques of cognitive-behavioral therapy.

Hours: 3.0 Credit, 3.0 Lecture, 2.0 Lab
Prerequisites: Acceptance into clinical psychology program.

Psychotherapy 3: Child and Adolescent [PSYCH-653]

BYU > College of Family, Home, and Social Sciences > Department of Psychology > Course

Theory and treatment techniques of child and adolescent therapy.

Hours: 3.0 Credit, 3.0 Lecture, 2.0 Lab
Prerequisites: Acceptance into clinical psychology program.

Psychotherapy 4: Group [PSYCH-654]

BYU > College of Family, Home, and Social Sciences > Department of Psychology > Course

Theory and techniques of small-group processes.

Hours: 3.0 Credit, 3.0 Lecture, 2.0 Lab
Prerequisites: Acceptance into clinical psychology program.

Qualitative Research Methods [PSYCH-512]

BYU > College of Family, Home, and Social Sciences > Department of Psychology > Course

Theories and methods of qualitative research emphasizing philosophical assumptions, question formulation, data gathering, interpretation, and presentation of findings.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Instructor's consent.

Research Design [PSYCH-504]

BYU > College of Family, Home, and Social Sciences > Department of Psychology > Course

Overview of designs used in psychotherapeutic literature, emphasizing critical analysis of empirical research.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Concurrent enrollment in Psych 501.

Seminar in Health Psychology [PSYCH-686R]

BYU > College of Family, Home, and Social Sciences > Department of Psychology > Course

Advanced topics in health psychology research and practice.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Psych 583 or equivalent or instructor's consent.

Seminar in Mathematical Psychology [PSYCH-578R]

BYU > College of Family, Home, and Social Sciences > Department of Psychology > Course

Variable topics concerning the application of mathematical and statistical methods to psychology, with emphasis on jointly publishing a methods paper.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: or equivalent.

Seminar in Neuroanatomy [PSYCH-712R]

BYU > College of Family, Home, and Social Sciences > Department of Psychology > Course

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Acceptance into clinical psychology program.

Seminar in Psychopharmacology [PSYCH-687R]

BYU > College of Family, Home, and Social Sciences > Department of Psychology > Course

Major classes of psychoactive drugs, emphasizing drug-behavioral interactions.

Hours: 3.0 Credit, 0.0 Lecture, 0.0 Lab
Prerequisites: Psych 585 or equivalent.

Seminar in Theoretical/Philosophical Psychology [PSYCH-648R]

BYU > College of Family, Home, and Social Sciences > Department of Psychology > Course

Analysis of theoretical and philosophical issues in the discipline of psychology.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Instructor's consent or acceptance into PhD program.

Teaching Psychology [PSYCH-693]

BYU > College of Family, Home, and Social Sciences > Department of Psychology > Course

Prepares graduate students for independent teaching experiences.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Enrollment in master's or PhD program.

Theory and Research in Social Psychology [PSYCH-550]

BYU > College of Family, Home, and Social Sciences > Department of Psychology > Course

Current theories and research on interaction with others.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: or equivalent; or instructor's consent.

Topics in Behavioral Neuroscience [PSYCH-513R]

BYU > College of Family, Home, and Social Sciences > Department of Psychology > Course

Advanced topics and skills in behavioral neuroscience.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Psych 381 or equivalent or instructor's consent.

Topics in Clinical Psychology [PSYCH-711R]

BYU > College of Family, Home, and Social Sciences > Department of Psychology > Course

Theory and practice in specific topics.

Hours: 0.5-3.0 Credit, ARR Lecture, 0.0 Lab
Prerequisites: Acceptance into clinical psychology program.

Topics in Neuropsychology [PSYCH-712R]

BYU > College of Family, Home, and Social Sciences > Department of Psychology > Course

Current topics, including neuroanatomy and adult and child assessment. Other topics as determined by student interest.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Acceptance into clinical psychology program.

Baldwin, Scott A

BYU > College of Family, Home, and Social Sciences > Department of Psychology > Faculty

Associate Professor
Psychology
PhD, University of Memphis, 2006
Research Interest: Psychotherapy Outcome and Process Research; Quantitative Methodology; Program Evaluation

Birmingham, Wendy Ann

BYU > College of Family, Home, and Social Sciences > Department of Psychology > Faculty

Assistant Professor
Psychology
PhD, University of Utah, 2011
Research Interest: Health Psychology; Relationships and Disease Processes; Social Support, Cancer and Screening Behavior; Cardiovascular Disease

Braithwaite, Scott Ronald

BYU > College of Family, Home, and Social Sciences > Department of Psychology > Faculty

Associate Professor
Psychology
PhD, Florida State University, 2010
Research Interest: Prevention of Marital Dysfunction and the Secondary Consequences that Attend It; The Influence of Close Relationships on Physical and Mental Health; Partner Selection

Brown, Bruce Leonard

Professor
Psychology
PhD, McGill University, Canada, 1969
Research Interest: Statistical and Mathematical Methods and Measurement; Psycholinguistics; Theory and Philosophy

Burlingame, Gary Michael

Professor
Psychology
PhD, University of Utah, 1983
Research Interest: Group Therapy; Process and Outcome; Outcome Assessment; Measurement/Methodology

Cobia, Derin J

Assistant Professor
Psychology
PhD, St. Louis University, 2008
Research Interest: Neuropsychology, Neuroimaging of psychosis, Dementia

Gale, Shawn D

Associate Professor
Psychology
PhD, Brigham Young University, 1994

Gantt, Edwin E

Associate Professor
Psychology
PhD, Duquesne University, 1998
Research Interest: Philosophical Foundations of Psychological Science; Theories of Religion and Religious Experience; Theories of Altruism and Empathy; Qualitative and Alternative Research Methods; Critical Examination of Naturalistic and Evolutionary Approaches to Psychology

Green, Kat Tumblin

Assistant Teaching Professor
Psychology
PhD, Brigham Young University, 2014
Research Interest: Clinical Child Psychology, Preschool Behavior Problems: Childhood Anxiety and OCD

Hardy, Sam A

Associate Professor
Psychology
PhD, University of Nebraska-Lincoln, 2005
Research Interest: Adolescent and Adult Development; Personality; Morality; Religiosity; Self and Identity; Agency; Theory and Philosophy

Hedges, Dawson Ward

Professor
Psychology
MD, University of Utah, 1988
Research Interest: Psychiatry; Neuroscience; Electroencephalography

Higley, James Dee

Professor
Psychology
PhD, University of Wisconsin, 1985
Research Interest: Developmental Psychopathology, Psychobiology, and Primate Behavior

Holt-Lunstad, Julianne

Professor
Psychology
PhD, University of Utah, 2001
Research Interest: Social Relationships; Stress and Coping; Psychoneuroendocrinology; Psychophysiology; Health Psychology

Hopkins, Ramona Ovard

Professor
Psychology
PhD, University of Utah, 1996
Research Interest: Cognitive Neuroscience and Neurobiological Approaches to Cognition; Brain Imaging; Brain Behavior Relationships Following Anoxia and Brain Injury; Effects of Brain Injury on Emotion; Health Related Quality of Life; and Family Stress Due to Illness

Jensen, Chad D

Associate Professor
Psychology
PhD, University of Kansas, 2011
Research Interest: Clinical Child and Adolescent Psychology, Pediatric Psychology, Pediatric Behavioral Weight Control

Jones, Melissa Kay

Assistant Teaching Professor
Psychology
PhD, University of Maryland, 2006
Research Interest: Clinical Psychology, Psychotherapy Process and Outcome; Women's issues

Kay, Daniel Brice

Assistant Professor
Psychology
PhD, University of Florida, 2013
Research Interest: Sleep, Insomnia, Cognition, Mood Disorders, Neuroimaging

Kirwan, Christopher B

Associate Professor
Psychology
PhD, Johns Hopkins University, 2006
Research Interest: Memory; Amnesia; Functional Neuroimaging

Larson, Michael J

Associate Professor
Psychology
PhD, University of Florida, 2008
Research Interest: Neuropsychology; Cognitive Neuroscience; Neuroimaging; Cognitive Changes Following Traumatic Brain Injury; Cognitive Processes in Psychopathology such as Obsessive-Compulsive Disorder

Luke, Steven Garet

Assistant Professor
Psychology
PhD, University of Illinois, 2011
Research Interest: Language processing; Vision; Reading; Eye Movements; Neural Control and Integration of Cognitive Processes

Lundwall, Rebecca Allred

Assistant Professor
Psychology
PhD, Rice University, 2013
Research Interest: Visual Attention Development; Genetics; Gene-by-Environment Interactions; Cognitive Neuroscience

Miller, Harold L

Professor
Psychology
PhD, Harvard, 1975
Research Interest: Experimental Analysis of Learning and Motivation; Behavioral Economics; Self-control; Evolutionary Psychology; Educational Assessment; Pedagogy; Educational Reform

Ridge, Robert D

Associate Professor
Psychology
PhD, University of Minnesota, 1993
Research Interest: Media Influences on Anti- and Prosocial Behavior; Interpersonal Interaction; Applied Social Psychology

South, Mikle Don

Associate Professor
Psychology
PhD, University of Utah, 2005
Research Interest: Autism Spectrum Disorders; Social Emotion/Motivation, Functional Neuroimaging, Restricted/Repetitive Behaviors and Interests, Diagnostic Issues

Steffen, Patrick R

Professor
Psychology
PhD, University of Miami, 1998
Research Interest: Clinical Health Psychology; Stress and Development of Disease; Spiritual and Cultural Factors in Health

Steffensen, Scott C

Professor
Psychology
PhD, University of Utah, 1987
Research Interest: Addiction; Learning/Memory; Anesthesia and Consciousness; Neuroscience

Warren, Jared Scott

Associate Professor
Psychology
PhD, University of Kansas, 2003
Research Interest: Clinical Child and Adolescent Psychology; Evaluating Child Psychotherapy Outcomes and Processes

Williams, Richard N

Professor
Psychology
PhD, Purdue University, 1981
Research Interest: Theoretical and Philosophical Foundations of Psychology

Yamawaki, Niwako

Associate Professor
Psychology
PhD, University of Utah, 2002
Research Interest: Counseling Psychology; Gender Role and Sexism; Cross-Cultural Studies; Attitude Toward Mental Health; Individualism/Collectivism

Public Health

Address

Health Science
4103 LSB
801-422-3082
mph@byu.edu

Programs

Public Health [662599]

The mission of public health is to assure the health and well-being of populations. It is the science and art of preventing disease, prolonging life, and promoting health and efficiency through organized research and interventions. The purpose of the graduate program is to prepare students to be leaders in public health and health promotion.

Curricula in the MPH program prepares students to work with underserved and at-risk populations in various settings.

Health promotion professionals are trained in: epidemiology and biostatistics, community health analysis, health-related behavior and the behavior change process, educational processes, program planning, implementation and evaluation, environmental health, research, administration, health communication and social marketing, community mobilization, international health practice and policy advocacy.

One graduate degree is offered through the Department of Public Health: the Master of Public Health—MPH.

Fax: (801) 422-0004

Chair: Carl L. Hanson
Graduate Coordinator: Benjamin Crookston

Resources & Opportunity

The Department of Public Health is housed in the Life Sciences Building. Students have access to graduate study labs and computer labs that house approximately 45 computers equipped with a range of software including MS Office, Internet Explorer, SAS, SPSS, and other course-specific software.

The labs also have printers and televisions with VGA and audio connections.

Most key public health journals are available to MPH students at the Harold B. Lee Library, the third best university library in the nation. Students have access to a departmental research and technology lab for research or other projects.

For a more detailed description of the graduate program requirements, send for a copy of the department's MPH brochure.

Financial Assistance

Graduate teaching or research assistantship positions may be available for qualified students. Additional scholarships and awards are available on a competitive basis at the college and university levels.

Public Health (MPH) [662599]

BYU > College of Life Sciences > Public Health > Program

The most recognized professional credential in public health practice and leadership, the Master of Public Health (MPH) is a practice-based degree that enables students to gain knowledge basic to public health. The MPH program at BYU prepares students to function as public health professionals in government, nonprofit, healthcare, and other settings; and provide leadership in the field of public health.

The average length of time required to complete the MPH program is two years, depending on course load and previous academic training or professional activity.

Requirements for Degree. (Effective Fall 2014)

> Credit hours (48): 36 hours of required courses; 6 hours of elective credits; 6 hours of field experience (300 contact hours).
> Required core courses: HLTH 600, 602, 604, 606, 607, 608, 612, 618, 690.
> Requirements for the field experience are determined by the student's graduate committee and are based on prior education, experience, and present professional interests.
> Examinations: certification exam (Certified in Public Health), field experience written report.

Required Test

GRE

TOEFL if English is not first language

Additional Requirements

1. Statement of professional intent: Include preparation and background for the MPH program, including applied language experience; career goals in public health; basic reasons for choosing a career in public health; notable qualities and talents that would enhance success in a public health career; research interests; professional interests; and reasons for applying to the Brigham Young University's MPH program
2. Baccalaureate degree with a major or minor in public health, school health education, health promotion, biological sciences, nursing, anthropology, food science & nutrition, or other allied fields
3. Minimum GPA of 3.2 for last 60 hours of upper-level course work
4. Resume

Critical Health Behaviors and Risks in Public Health [HLTH-655]

BYU > College of Life Sciences > Public Health > Course

> Team-taught seminar addressing six critical health behaviors and related risks pertaining to tobacco use, alcohol and drug use, injury and violence, nutrition, physical activity, and sexual risk behaviors.
>
> Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
> Prerequisites: Be in second year of study.

Determinants of Health Behavior [HLTH-608]

BYU > College of Life Sciences > Public Health > Course

> Psychological, social, and cultural determinants of health behavior. Introducing health behavior theories and applying behavior change models to program development.
>
> Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Environmental Health Sciences [HLTH-606]

BYU > College of Life Sciences > Public Health > Course

Environmental risks for human disease. Contributions of physical and biological factors and social, economic, and political determinants relative to sustainable development and promotion of health.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Field Experience [HLTH-688R]

BYU > College of Life Sciences > Public Health > Course

Domestic U.S. and international field experiences in public health settings that expose students to public health strategies and interventions in multicultural settings.

Hours: 1.0-6.0 Credit, 0.0 Lecture, 0.0 Lab
Prerequisites: Hlth 600, Hlth 604, Hlth 608, Hlth 625.

Foundations of Public Health and Health Promotion [HLTH-600]

BYU > College of Life Sciences > Public Health > Course

Global perspectives of public health and health promotion. Essential public health services, public health organizations, and current issues in global health promotion.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Independent Studies [HLTH-696R]

BYU > College of Life Sciences > Public Health > Course

Hours: 0.5-3.0 Credit, ARR Lecture, ARR Lab

Infections and Chronic Disease Prevention and Control [HLTH-619]

BYU > College of Life Sciences > Public Health > Course

Public health solutions to the leading causes of chronic and infectious disease mortality in the United States and the world.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Mentored Research [HLTH-691R]

BYU > College of Life Sciences > Public Health > Course

Collaborating with graduate faculty of public health on mentoring grants or other health-related research and initiatives.

Hours: 0.5-5.0 Credit, 0.0 Lecture, 0.0 Lab

Population-Based Health Promotion Interventions [HLTH-625]

BYU > College of Life Sciences > Public Health > Course

Macro- or population-based interventions, including mass communication, policy and legislation, media advocacy, social marketing, and community mobilization.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Principles of Biostatistics [HLTH-604]

BYU > College of Life Sciences > Public Health > Course

Basic concepts of biostatistics and their applications and interpretation. Topics include descriptive statistics, graphics, diagnostic tests, probability distributions, inference, regression, and life tables.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Principles of Epidemiology [HLTH-602]

BYU > College of Life Sciences > Public Health > Course

Principles and methods used in epidemiologic research, including study design, confounding, chance, bias, causality, and descriptive and analytic methods.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Program Planning and Evaluation [HLTH-612]

BYU > College of Life Sciences > Public Health > Course

Various program planning and implementation methods, theories, and skills, including needs assessment, priority setting, program development, evaluation and budgeting.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Public Health Administration [HLTH-607]

BYU > College of Life Sciences > Public Health > Course

Application of management and leadership skills in public health organizations. Includes systems thinking, developing shared visions, planning, communication, staffing, directing, finance, budgeting, and reporting.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Public Health Capstone [HLTH-690]

BYU > College of Life Sciences > Public Health > Course

An integrative learning experience that synthesizes foundational competencies of public health as a discipline with concentration competencies from the public health program. Case studies, professional development activities, and an applied project done in partnership with a public health organization are used to provide students with the opportunity to demonstrate mastery of foundational and concentration-specific knowledge, theory, and skills. Projects focus on underserved populations that experience health inequities and disparities.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Small-Group Health Promotion Interventions [HLTH-630]

BYU > College of Life Sciences > Public Health > Course

Micro-interventions: curriculum and the educational process, group dynamics, training models, consultation, and counseling, including theories used in health education and adult learning.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Special Topics in Public Health [HLTH-603R]

BYU > College of Life Sciences > Public Health > Course

Seminar exploring current global health issues.

Hours: 1.0-7.0 Credit, ARR Lecture, ARR Lab

Survey and Research Methods [HLTH-618]

BYU > College of Life Sciences > Public Health > Course

Designing, administering, and analyzing data collection instruments for research and evaluation in public health. Quantitative and qualitative methods.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Barnes, Michael D

BYU > College of Life Sciences > Public Health > Faculty

Professor
Health Science
PhD, Southern Illinois University, 1993
Research Interest: Health communication and social media; policy advocacy; family health

Beard, John D

BYU > College of Life Sciences > Public Health > Faculty

Assistant Professor
Health Science
PhD, University of North Carolina, Chapel Hill, 2015
Research Interest: Environmental heath; occupational health; epidemiology; neurological diseases; mental health

Chaney, Robert A

BYU > College of Life Sciences > Public Health > Faculty

Assistant Professor
Health Science
PhD, University of Cincinnati, 2014
Research Interest: Health geography; urban health; GIS mapping, urban bicyclist safety; drug use; transitional research; social determinants of health

Crandall, Aliceann

BYU > College of Life Sciences > Public Health > Faculty

Assistant Professor
Health Science
PhD, Johns Hopkins University, 2014
Research Interest: Family Health, Executive Functioning, Poverty and Health, Adolescent/Child Well-Being

Crookston, Benjamin T

BYU > College of Life Sciences > Public Health > Faculty

Associate Professor
Health Science
PhD, University of Utah, 2009
Research Interest: Global health; maternal and child health; nutritional epidemiology; infectious disease epidemiology

Hall, Parley Cougar

Associate Professor
Health Science
PhD, University of Utah, 2008
Research Interest: Social norm approaches in school health education; student-teacher quality indicators; school health and community partnerships

Hanson, Carl L

Professor
Health Science
PhD, Southern Illinois University, 1994
Research Interest: Health communication and social media; family health; adolescent health

Johnston, James D

Associate Professor
Health Science
PhD, University of Utah, 2010
Research Interest: Children's environmental health; infectious disease transmissions and prevention; occupational safety and health

Magnusson, Brianna Michele

Associate Professor
Health Science
PhD, Virginia Commonwealth University, 2011
Research Interest: Reproductive epidemiology; unintended pregnancy; contraceptive use; social and environmental factors affecting sexual and reproductive health

Merrill, Ray M

Professor
Health Science
PhD, Arizona State University, 1994
Research Interest: Cancer epidemiology; impact of advances in cancer treatment and screening tests; impact of various biases on cancer statistics

Novilla, Maria Lelinneth Lagman Beloy

Associate Professor
Health Science
MD, University of the City of Manila, 1990
Research Interest: Family health and involving the family in health promotion; social determinants of health economics; health risk behavior; chronic diseases

Page, Randy M

Professor
Health Science
PhD, Southern Illinois University, 1982
Research Interest: Adolescent health; substance abuse; global health promotion

Sloan, Chantel D

Assistant Professor
Health Science
PhD, Dartmouth College, 2009
Research Interest: Medical geography, respiratory syncytial virus, asthma and cancer epidemiology, air pollution

Spruance, Lori Andersen

Assistant Professor
Health Science
PhD, Tulane University, 2015
Research Interest: Childhood Obesity Prevention

Thacker, Evan L

Assistant Professor
Health Science
PhD, University of Washington, 2011
Research Interest: Health of older adults, neurological health, cognitive function, cardiovascular health

Thackeray, Rosemary

Professor
Health Science
PhD, University of Utah, 2000
Research Interest: Social marketing; technology; women's health

Thygerson, Steven M

Associate Professor
Health Science
PhD, Colorado State University, 2006
Research Interest: Occupational health and safety, injury prevention

West, Joshua H

Associate Professor
Health Science
PhD, University of California, San Diego, 2008
Research Interest: Application of theory-driven interventions to improve parenting

Public Service and Ethics

Address

Public Administration
760 TNRB
801-422-4221
mpa@byu.edu

Programs

Public Administration [233160]
Public Administration - Executive Program [233163]

Administered through the George W. Romney Institute of Public Service and Ethics, the Master of Public Administration (MPA) program prepares men and women for leadership in the public and nonprofit sectors.

Leadership in this context provides unique opportunities for service to others. The faculty and students of the Romney Institute are dedicated to the philosophy that students should develop excellence in both knowledge and management skills, based on a solid ethical foundation. The success of this philosophy is demonstrated by the wide variety of leadership positions now held by alumni throughout the world in state and local governments, federal agencies, research organizations, business firms, and diverse nonprofit organizations. Graduates are employed in a variety of careers, such as city managers, personnel directors, policy analysts, nonprofit program directors, performance auditors, and finance directors.

Today the public sector is called on to assist in areas that were traditionally the sole domain of profit organizations. Never before has there been a greater need for professionally trained public managers, and never before has there been greater opportunity for dedicated and qualified public managers to provide leadership in shaping the course of human affairs through public institutions and programs.

The Romney Institute offers two programs leading to the MPA degree: full-time and executive. Both are accredited by NASPAA - The Global Standard in Public Service Education. The full-time program requires two years; approximately fifty students are admitted each year. The executive program is taught one night a week for three years; approximately fifty students are admitted each year.

Director: Lori L. Wadsworth Graduate Coordinator: Jeffry A. Thompson

Resources & Opportunity

The N. Eldon Tanner Building. The Tanner Building, which houses the Marriott School of Business, is one of the finest facilities of its kind. The original building, with a dramatic seven-story atrium, was updated with a four-story addition. The addition boasts thirty-nine team study rooms, six large case rooms, the Blue Line Deli, and adds 76,000 square feet to the existing building.

The Marriott School of Business. The Marriott School is recognized as one of the outstanding management schools in the nation. Faculty are actively engaged in research and publication, and they fill leadership positions in a number of national professional organizations. The school has developed innovative educational programs that include internships, executive visitation programs, special student consulting and research projects, and other activities designed to bring management education and training closer to management practice. This is accomplished, in part, through the Marriott School's National Advisory Council.

The National Advisory Council. Consisting of more than 160 prominent business and government executives, the National Advisory Council lends major support to the Marriott School. Students benefit by interacting with council members in special campus lectures and seminars and by visiting or working with these executives in their respective organizations. Furthermore, the council assists students with placement opportunities, helps develop funding sources for scholarships, and provides professional development for faculty members.

Financial Assistance

The Romney Institute of Public Service and Ethics utilizes the Marriott School's financial aid provisions. Qualified MPA students can receive aid from the following: the Marriott School of Business Scholarship Fund, private scholarship donations, assistantship opportunities, and loan assistance.

Scholarships. The Marriott School offers scholarships to Marriott School students through the college, departments and programs. One application online at marriottschool.byu.edu/aid allows students to apply for all scholarships the Marriott School offers.

Assistantships. Research and teaching assistantships are available for qualified second-year students.

Loans. Several loans are available for Marriott School students:

- **Marriott School loans: available to full-time Marriott School day students. Marriott School loans are handled on an individual basis, dependent on financial need and standing within the participating program.**
- **BYU short-term loans: available for up to the cost of tuition only.**
- **Federal Stafford loans: subsidized by the U.S. government. Not available for international students.**

More information on and applications for these loans are available from the BYU Financial Aid Office, A-41 ASB, (801) 422-4104.

Public Administration (MPA) [233160]

The full-time MPA program is designed to provide an understanding of the essential body of knowledge and to develop the basic skills needed for professional management. Such essentials include quantitative analysis, managerial economics, organizational behavior, strategy, human resource management, accounting, budget and finance, ethics, and communication. These skills are taught through practical class and field experiences, case studies, formal and computer simulations, and special workshops and seminars. Second-year courses are designed around an individual's desired sector and skill areas. Sectors include local government, state and federal government, and nonprofit. Skills include resource development, program management, and finance. By selecting a sector and a skill area, students are uniquely prepared for a career where they can effectively administer in government and nonprofit programs.

Requirements for Degree

- **Credit hours: 57**
- **Required courses: 40 credit hours**
- ***First-year program:* courses in economic decision making, decision analysis, organizational behavior, communication, administrative environment, budgeting, statistics, finance, program evaluation, and career preparation.**
- ***Second-year program:* courses in ethics, legal issues, and human resource management, and a capstone course.**
- **Sector and skill courses. By selecting a sector (local government, state and federal government, or nonprofit) and a skill (resource development, program management, or finance) a student takes 15 credits to prepare for a specific career path.**

Required courses: MPA 520 or 620, 604 or 621, 608, 612, 630, 631, 632, 640, 641, 644, 646, 647, 662, 682, 683, 684, 686

Sector and skills courses: MPA 615, 617, 622, 623, 624, 625, 633, 634, 635, 638, 651A, 651B, 653, 654, 655, 656, 659R, 675, 676, 690R

The preceding does not represent the full range of requirements and opportunities in the program. See professors, academic advisor and career services director for greater detail.

Required Tests

GRE

Additional Requirements

- **Interest in public management as reflected in a statement of intent.**
- **The MPA program has no required prerequisite coursework. However, we strongly recommend that applicants complete the following undergraduate courses: economics, statistics, and accounting. Students who have taken these classes enter the program better prepared for graduate courses in these areas. Students must also be comfortable with the basic tasks and functions in Excel, PowerPoint, and Word.**
- **Resume**
- **3 Letters of recommendation**

Public Administration - Executive Program (MPA) [233163]

Persons with significant public administration experience who desire to pursue the master's degree program while continuing to work full-time are encouraged to apply. All courses in the program are offered in the evening, one night a week for three years at the BYU Salt Lake Center.

The executive MPA program consists of successful completion of 45 semester hours of approved course work. Classes are scheduled in such a way that students take six hours per semester and three hours per term. The executive MPA is a general degree and does not offer specialization in functional areas.

1. Interest in public management as reflected in a statement of intent
2. Minimum of 4 years' full-time professional, administrative, or supervisory experience in the public sector, or the equivalent
3. Presently hold, or assume in the near future, a midlevel or higher administrative responsibility
4. Resume
5. 3 Letters of Recommendation

Administrative Environment [MPA-684]

BYU > Marriott School of Business > Public Service and Ethics > Course

Introduction to the process of government and the legal, political, and social environment of public administration.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Career Development [MPA-647]

BYU > Marriott School of Business > Public Service and Ethics > Course

Students will complete a series of modules on various topics related to career development.

Hours: 0.5-1.0 Credit, Arr Lecture, Arr Lab
Prerequisites: Admission to the MPA program.

Career Exploration [MPA-646]

BYU > Marriott School of Business > Public Service and Ethics > Course

Provides students the opportunity to explore careers in the public and nonprofit sectors, with specific opportunities to hear from and interact with professionals in the field and participate in mentoring activities.

Hours: 0.5-1.0 Credit, Arr Lecture, Arr Lab
Prerequisites: Admission to the MPA program.

Communication in Public Administration [MPA-662]

BYU > Marriott School of Business > Public Service and Ethics > Course

Crucial communication skills for managers and leaders in public and not-for-profit organizations. Emphasis on writing and oral presentations.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Cost Benefit Analysis [MPA-633]

BYU > Marriott School of Business > Public Service and Ethics > Course

Compares and contrasts multiple approaches to cost-benefit analysis, identifying when to apply this set of analytic techniques and examining the analytic and ethical challenges of the cost-benefit approach.

Hours: 1.5 Credit, 1.5 Lecture, 0.0 Lab

Data Science for Managers [MPA-634]

BYU > Marriott School of Business > Public Service and Ethics > Course

The statistical computer language R will be used to explore, wrangle, program, model, and communicate quantitative relationships using public and private databases.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Data Visualization [MPA-635]

BYU > Marriott School of Business > Public Service and Ethics > Course

Principles and practice of effectively communicating data visually to a variety of stakeholders in a pleasing and readily accessible manner, including an understanding of design principles and data communication ethics.

Hours: 1.5 Credit, 1.5 Lecture, 0.0 Lab
Prerequisites: MPA 630 or equivalent.

Debt Management [MPA-625]

BYU > Marriott School of Business > Public Service and Ethics > Course

Advanced study of capital markets, debt instruments, bond issues, debt servicing, and financial disclosure requirements.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Directed Research [MPA-692R]

BYU > Marriott School of Business > Public Service and Ethics > Course

Application of research methods relative to managers.

Hours: 0.5-3.0 Credit, 3.0 Lecture, 0.0 Lab

Economic Decision Making for Managers [MPA-612]

BYU > Marriott School of Business > Public Service and Ethics > Course

Basic microeconomic theory and tools applied to strategic decision making and management strategy.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Ethics for Management [MPA-682]

BYU > Marriott School of Business > Public Service and Ethics > Course

Ethical theory and its application to managerial issues. Ethical conflict and dilemmas and choosing between conflicting goods.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Executive Nonprofit Management [MPA-652]

BYU > Marriott School of Business > Public Service and Ethics > Course

Introduction to nonprofit organizations, including history, philosophy, organizational structure, government relations, tax rules, and applicable laws. The financial structure and income sources for nonprofit organizations, and the applicable laws regulating nonprofit finance.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Field Project [MPA-693R]

BYU > Marriott School of Business > Public Service and Ethics > Course

Hours: 0.5-4.0 Credit, 0.0 Lecture, 0.0 Lab

Finance for Public Administrators [MPA-520]

BYU > Marriott School of Business > Public Service and Ethics > Course

Overview of key concepts and principles from corporate, municipal, and personal finance. Includes financial math related to time value of money, loan amortizations, and budgeting.

Hours: 1.5 Credit, 1.5 Lecture, 0.0 Lab

Financial Toolkit for Government and Nonprofit Analysts [MPA-620]

BYU > Marriott School of Business > Public Service and Ethics > Course

Spreadsheet applications of the time value of money to financial decisions and project analysis.

Hours: 1.5 Credit, 1.5 Lecture, 0.0 Lab

Fundraising Tools for Nonprofits [MPA-653]

BYU > Marriott School of Business > Public Service and Ethics > Course

A survey of fundraising tools used by nonprofit resource development officers. The course introduces students to these tools, strategies for their use, and measures of their effectiveness.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Government and Nonprofit Accounting [MPA-604]

BYU > Marriott School of Business > Public Service and Ethics > Course

An introduction to basic fund accounting, statement analysis, and financial reporting practices for governmental and nonprofit organizations.

Hours: 1.5 Credit, 1.5 Lecture, 0.0 Lab

Government Finance [MPA-622]

BYU > Marriott School of Business > Public Service and Ethics > Course

Forecasting of financial resources that are acquired through the taxation of income, consumption, and property.

Hours: 1.5 Credit, 1.5 Lecture, 0.0 Lab

Grantwell [MPA-659R]

BYU > Marriott School of Business > Public Service and Ethics > Course

Project-based course exploring real-world issues in philanthropy. Understanding resource development, strategic funding priorities, applicant assessment, grant evaluation, and grant management through projects with large individual and institutional donors.

Hours: 1.5 Credit, 1.5 Lecture, 0.0 Lab

Health Care Executive Lectures [MPA-591R]

BYU > Marriott School of Business > Public Service and Ethics > Course

Top executives share insights about the health care industry and related career opportunities.

Hours: 1.0 Credit, 1.0 Lecture, 0.0 Lab

Health Care Internship [MPA-599R]

BYU > Marriott School of Business > Public Service and Ethics > Course

Designed to give relevant experience to students preparing for careers in health care management.

Hours: 1.0-3.0 Credit, Arr Lecture, Arr Lab

Healthcare Industry Dynamics [MPA-588]

BYU > Marriott School of Business > Public Service and Ethics > Course

A broad study of the many interconnected components of the healthcare industry, including medical technology, pharmaceuticals, hospital administration, healthcare policy, insurance, public health, etc. Introductory applications of various functional skills to healthcare (e.g., accounting, data analytics, ethics, finance, human resources, information systems, marketing, operations, organizational behavior, strategy, supply chain management, and other specializations).

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Human Resource Management [MPA-640]

BYU > Marriott School of Business > Public Service and Ethics > Course

Current theory and practice of human resource management in the public and not-for-profit sectors.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Intergovernmental Relations [MPA-617]

BYU > Marriott School of Business > Public Service and Ethics > Course

Public service employees work in settings of increasing interdependence and complexity. Introduction to the managerial and organizational implications of federalism, networking, coordination, cooperation, and collaboration.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Leadership in Public Administration [MPA-643]

BYU > Marriott School of Business > Public Service and Ethics > Course

Key aspects of leadership in the public and not-for-profit sectors. Concepts include applied leadership theories, power and politics, conflict, and negotiation.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Legal Issues in Public Administration [MPA-683]

BYU > Marriott School of Business > Public Service and Ethics > Course

Introduction to legal issues affecting public administration, including the legislative and judicial processes, administrative law, and basic constitutional law.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Local Government 1: Form of Government and Service Delivery [MPA-675]

BYU > Marriott School of Business > Public Service and Ethics > Course

Introduction to the dynamic world of local government. Topics include forms of government, political relationships and policy making, and issues of service delivery.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Local Government 2: Planning, Land Use, and Growth [MPA-676]

BYU > Marriott School of Business > Public Service and Ethics > Course

Current issues facing local governments, including planning, land use and zoning, annexation, growth and sprawl, economic development, and other contemporary issues.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Management Strategy [MPA-685]

BYU > Marriott School of Business > Public Service and Ethics > Course

Developing mission and goals, analyzing environment, and assessing and developing organization capacity.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Managerial Accounting and Computer Concepts [MPA-603]

BYU > Marriott School of Business > Public Service and Ethics > Course

Accounting systems and processes emphasizing use of management control, financial analysis, decision making, performance evaluation. Spreadsheets and database management.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Negotiations [MPA-644]

BYU > Marriott School of Business > Public Service and Ethics > Course

This course covers basic negotiation skills and principles for public administrators. Students apply their learning through practice and self-reflection.

Hours: 0.5 Credit, 0.5 Lecture, 0.0 Lab

Nonprofit Finance [MPA-624]

BYU > Marriott School of Business > Public Service and Ethics > Course

Study of the financial structure and income sources for nonprofit organizations, and the applicable laws regulating nonprofit finance.

Hours: 1.5 Credit, 1.5 Lecture, 0.0 Lab

Nonprofit Organization Management 1 [MPA-651A]

BYU > Marriott School of Business > Public Service and Ethics > Course

Orienting students to principles of best practice in the management of nonprofit organizations. The course includes topics in nonprofit strategic management, human resource management, and financial management.

Hours: 1.5 Credit, 1.5 Lecture, 0.0 Lab

Nonprofit Organization Management 2 [MPA-651B]

BYU > Marriott School of Business > Public Service and Ethics > Course

Application of nonprofit management principles of best practice directly to partner organizations in the community by providing organizational assessments based on the work completed in 651A.

Hours: 1.5 Credit, 1.5 Lecture, 0.0 Lab
Prerequisites: P Mgt 651A.

Nonprofit Resource Development and Leadership [MPA-656]

BYU > Marriott School of Business > Public Service and Ethics > Course

An advanced course on resource development and nonprofit leadership. Students will learn how to incorporate development goals and strategies into nonprofit organizational management, with an emphasis on long-term growth.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Nonprofit Structure and Tax [MPA-623]

BYU > Marriott School of Business > Public Service and Ethics > Course

Introduction to the study of nonprofit organizations, including history, philosophy, organizational structure, government relations, tax rules, and applicable laws.

Hours: 1.5 Credit, 1.5 Lecture, 0.0 Lab

Organizational Behavior [MPA-641]

BYU > Marriott School of Business > Public Service and Ethics > Course

Personal effectiveness in organizations; increased awareness of interpersonal strengths and weaknesses.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Practicum [MPA-693R]

BYU > Marriott School of Business > Public Service and Ethics > Course

Planned application of administrative concepts in a management work situation and analysis of the impact.

Hours: 0.5-4.0 Credit, 0.0 Lecture, 0.0 Lab

Project Management [MPA-608]

BYU > Marriott School of Business > Public Service and Ethics > Course

An overview of basic project management processes and tools, including project scoping, planning and scheduling, stakeholder management, and risk management. Introduction to strategic planning and agile project management concepts.

Hours: 1.5 Credit, 1.5 Lecture, 0.0 Lab

Public Administration Capstone [MPA-686]

BYU > Marriott School of Business > Public Service and Ethics > Course

Exploration of critical issues in public administration in the context of the theories presented in the MPA program.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Public and Nonprofit Budgeting [MPA-621]

BYU > Marriott School of Business > Public Service and Ethics > Course

Management of public and nonprofit financial resources: budget allocation, control, and planning.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Public Financial Resource Management [MPA-626]

BYU > Marriott School of Business > Public Service and Ethics > Course

Foundational skills and knowledge in the management of public financial resources. Concepts include cost analysis, budgeting, revenue systems, performance assessment, financial condition analysis, and public sector accounting, within the context of nonprofits and state and local government. Basic set of financial management tools that are critical for all public managers. Provides a foundation for students to pursue more advanced training in public financial management.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Public Management Field Study [MPA-690R]

BYU > Marriott School of Business > Public Service and Ethics > Course

Faculty-directed applied research and technical assistance projects for public and nonprofit organizations.

Hours: 1.0-3.0 Credit, Arr. Lecture, Arr. Lab

Public Policy Process [MPA-615]

BYU > Marriott School of Business > Public Service and Ethics > Course

Examines the governance processes employed by societies in adopting public policies. Includes the politics, institutions, norms, and actors involved in agenda-setting, legitimation, and decision-making. Introduces analytical frameworks to explain and evaluate the quality of governance.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Public Program Evaluation [MPA-631]

BYU > Marriott School of Business > Public Service and Ethics > Course

Principles and methodologies of evaluating programs, measuring performance, and assessing program effectiveness in governmental and nonprofit entities.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Public Service Program Design and Management [MPA-638]

BYU > Marriott School of Business > Public Service and Ethics > Course

Providing tools to design, promote, manage, and deliver public services.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: MPA 632.

Quantitative Decision Analysis [MPA-632]

BYU > Marriott School of Business > Public Service and Ethics > Course

Effective decision making using software decision-analysis tools and applications to important managerial decisions.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Readings and Conference [MPA-691R]

BYU > Marriott School of Business > Public Service and Ethics > Course

Individualized readings and consultations.

Hours: 0.5-3.0 Credit, 3.0 Lecture, 0.0 Lab

Relationship Management for Nonprofits [MPA-654]

BYU > Marriott School of Business > Public Service and Ethics > Course

Relationships are critical to nonprofit resource development. This course covers the essential skills for nonprofit managers to develop and manage key relationships to help their organizations meet their needs and goals.

Hours: 1.5 Credit, 1.5 Lecture, 0.0 Lab

Statistical Analysis [MPA-630]

BYU > Marriott School of Business > Public Service and Ethics > Course

Introduction to research methods and applied basic statistical procedures including sampling, descriptive statistics, inferential statistics, and linear and multiple regression.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Volunteer Management [MPA-655]

BYU > Marriott School of Business > Public Service and Ethics > Course

The focus of this course is on recruiting, training, motivating, and retaining volunteers, as well as managing volunteer programs as a whole.

Hours: 1.5 Credit, 1.5 Lecture, 0.0 Lab

Agle, Bradley Roy

BYU > Marriott School of Business > Public Service and Ethics > Faculty

Professor
Romney Institute of Public Management
PhD, University of Washington, 1993
Research Interest: Ethics; Leadership

Christensen, Robert Kay

BYU > Marriott School of Business > Public Service and Ethics > Faculty

Associate Professor
Romney Institute of Public Management
PhD, Indiana University, 2007
Research Interest: Public Administration; Local Government

Facer, Rex L

BYU > Marriott School of Business > Public Service and Ethics > Faculty

Associate Professor
Romney Institute of Public Management
PhD, University of Georgia, 2002
Research Interest: Local Government; Public Budgeting; Leadership

Hart, David Winther

BYU > Marriott School of Business > Public Service and Ethics > Faculty

Associate Professor
Romney Institute of Public Management
PhD, State University of New York, Albany, 1997
Research Interest: Ethics; Organizational Theory

Nelson, Ray Dean

BYU > Marriott School of Business > Public Service and Ethics > Faculty

Associate Professor
Romney Institute of Public Management
PhD, University of California, Berkeley, 1975
Research Interest: Finance; Quantitative Methods

Owens, Bradley Paul

BYU > Marriott School of Business > Public Service and Ethics > Faculty

Associate Professor
Romney Institute of Public Management
PhD, University of Washington, 2009
Research Interest: Ethics, Organizational Behavior

Silvia, Chris E

BYU > Marriott School of Business > Public Service and Ethics > Faculty

Assistant Professor
Romney Institute of Public Management
PhD, Indiana University, 2010
Research Interest: Public Management, Quantitative Methods

Thompson, Jeffry Allen

BYU > Marriott School of Business > Public Service and Ethics > Faculty

Associate Professor
Romney Institute of Public Management
PhD, University of Minnesota, 1999
Research Interest: Leadership; Ethics

Wadsworth, Lori L

BYU > Marriott School of Business > Public Service and Ethics > Faculty

Associate Professor
Romney Institute of Public Management
PhD, University of Utah, 2003
Research Interest: Human Resource Management; Ethics; Leadership

Witesman, Eva Michelle Hunter

BYU > Marriott School of Business > Public Service and Ethics > Faculty

Associate Professor
Romney Institute of Public Management
PhD, Indiana University, Bloomington, 2008
Research Interest: Nonprofit Management; Public Program Evaluation; Quantitative Methods

Religious Education

BYU > Religious Education > Department

Address

Religious Education

370 JSB
801-422-3290
lori_soza@byu.edu

Programs

- Chaplaincy [776397]
- Religious Education [776361]

The Religious Education MA program is open only to full-time teachers in the LDS Church Seminaries and Institutes System (S&I) who have at least one year of employment in the system.

Fax: (801) 422-0616

Dean: Daniel K Judd
Graduate Coordinator: Terry B. Ball
Chair - Church History and Doctrine: Alexander L. Baugh
Chair - Ancient Scripture: Dana M. Pike

Chaplaincy (MA) [776397]

The Chaplaincy MA is open only to Latter-day Saint military chaplain candidates endorsed by the LDS Church's Office of Military Relations. The degree is designed to provide advanced preparation for service as a military chaplain. The core curriculum focuses primarily on the following areas of study: Religious Studies, Old Testament, New Testament, Book of Mormon, Doctrine and Covenants, Doctrines of the Restoration, Armed Forces Chaplaincy History, Christian Theology and History, World Religions and Security/Area Analysis, Pastoral Counseling, Military Ministry, Professional Standards and Ethics, and Clinical Pastoral Education. Chaplain candidates will conclude their program with a comprehensive oral exam and a final project.

Requirements for Degree--Chaplain Candidates

Credit hours (90): minimum 84 course work hours plus 6.0 Clinical Pastoral Education hours.
Required courses: Rel E 595, Rel E 600, Rel E 600a, Rel E 601R, Rel 602, Rel E 603, Rel E 604, Rel 605, Rel E 610, Rel 611, Rel E 621; Rel E 624, Rel E 625, Rel E 630, Rel E 631, Rel E 635, Rel E 640, Rel E 641, Rel 642, Rel E 645, Rel E 650; Rel E 688R, Rel E 695R, Rel E 698R.
Twenty-seven hours in the following areas: Marriage and Family Therapy, Social Work and Counseling Psychology.
Examination: Final oral comprehensive examination based on military chaplaincy emphasis.
Final Project: Follows a thesis format with a practical application. Project committees must include three members selected from the Religious Education graduate faculty or other approved academics.

Admission is limited to Latter-day Saint military chaplain candidates endorsed by the LDS Church's Office of Military Relations.

Required Tests

GRE

Religious Education (MA) [776361]

The Religious Education MA program is open only to full-time teachers in the LDS Church Seminaries and Institutes System (S&I) who have at least one year of employment in the system. The degree is designed to provide advanced preparation for teaching in the LDS Church Seminaries and Institutes System. The core curriculum focuses primarily on six areas of study: Old Testament, New Testament, Book of Mormon, Doctrine and Covenants, Latter-day Saint history, and the teaching of religion and scripture.

Religious Education admits a maximum of twelve students to the program in even numbered academic years. Applicants must be currently employed as either a full-time LDS Seminary or Institute teacher and have permission from their Seminaries and Institute Region Director before applying. Course work begins summer term. The program is designed to be completed in three years (two for course work and one for the culminating project).

Requirements for Degree

Credit hours (37): minimum 31 course work hours plus 6 project hours (Rel E 698R).
Required courses: RelE 500, RelE 501, RelE 595, RelE 610, RelE 611, RelE 621, RelE 624, RelE 625, RelE 632, RelE 640, RelE 650, RelE 698R.
Project. The project prospectus must be approved by the student's faculty committee and program and college administrators. Project committees must include at least three members selected from the Religious Education graduate faculty or other approved academics.
Examinations: written examination of course work and oral defense of project.

Required Tests

GRE

Additional Requirements

Personal qualifications will be considered.
Only full-time teachers in the LDS Church Seminaries and Institutes System (S&I) who have at least one year of employment in the system will be considered for admission.
Written approval to apply from your CES Assistant Administrator.
One letter of recommendation from your CES Area Director.
Two letters of recommendation from an academic source outside of CES.

Basic Skills in Pastoral Counseling and Chaplain Care Ministry [REL E-600]

BYU > Religious Education > Religious Education > Course

Focuses on the basic skills of pastoral counseling for those wishing to be full-time military chaplains. The emphasis is on pastoral skills in a military setting.

Hours: 3.0 Credit, 6.0 Lecture, Lab

Clinical Pastoral Education Practicum [REL E-688R]

BYU > Religious Education > Religious Education > Course

Supervised encounters with persons in crisis. Experiencing the interdisciplinary team process of helping persons. Developing skill in interpersonal and interprofessional relationships and a deeper understanding of ministry.

Hours: 1.0-6.0 Credit, Arr. Lecture, Arr. Lab
Prerequisites: Available to prospective chaplains only.

Doctrinal Contributions of the Restoration [REL E-650]

BYU > Religious Education > Religious Education > Course

Doctrinal contributions of the Restoration from Joseph Smith to the present prophets, seers, and revelators; LDS theology and practice.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Doctrine and Covenants Graduate Seminar [REL E-624]

BYU > Religious Education > Religious Education > Course

Topics in the Doctrine and Covenants, emphasizing doctrinal and historical background.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Educational Philosophy and Values in Religious Education [REL E-500]

BYU > Religious Education > Religious Education > Course

Philosophical basis and underlying values in religious education.

Hours: 2.0 Credit, 2.0 Lecture, 0.0 Lab

End-of-Life Care and Bereavement [REL E-604]

BYU > Religious Education > Religious Education > Course

End-of-life (EOL) care from spiritual, physical, and psychosocial perspectives. Comparisons from various cultural/ethnic backgrounds. Complexities of EOL care including impact on families, health care system, and society. Personal perspectives about death, dying, and bereavement.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Ethics, Professional Roles, and Standards for Armed Forces Chaplains [REL E-602]

BYU > Religious Education > Religious Education > Course

Orientation of the chaplaincy as a profession, including the study of standards, roles, ethical/legal issues, and the organizational structure of the Armed Forces Chaplaincy.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Graduate standing; instructor's consent.

Fundamentals of Religious Studies [REL E-635]

BYU > Religious Education > Religious Education > Course

Exploring ideas about the divine; ways in which religious concepts are expressed in writings, rituals, and belief systems across time and among various cultures from the past to the present.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Graduate Seminar in Christian Theological Thought [REL E-645]

BYU > Religious Education > Religious Education > Course

Doctrines about God, Christ, the Trinity, salvation, human beings, sin, grace, the Church, sacraments, and Christian hope in comparison with the restored gospel.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Graduate Seminar in Healthcare Ministry [REL E-603]

BYU > Religious Education > Religious Education > Course

Exploration of healthcare ministry in hospital and hospice settings. Examines standards of ministry care, theological grounding for the same, and core and developing skills in healthcare ministry. Examination of the infrastructure of care settings in hospital and hospice environs. Exploration of spiritual and pastoral care with special populations (i.e. native traditions, Asian, Middle Eastern, and Indian).

Hours: 3.0 Credit, 2.5 Lecture, 0.0 Lab
Prerequisites: Graduate standing and selection for the graduate Chaplaincy program at BYU.

Graduate Seminar on the Book of Mormon [REL E-621]

BYU > Religious Education > Religious Education > Course

Topics in the Book of Mormon focusing on doctrine and the historical background of the text.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Graduate Seminar on the New Testament [REL E-611]

BYU > Religious Education > Religious Education > Course

Topics in the New Testament emphasizing doctrinal, historical, and cultural background.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Graduate Seminar on the Old Testament [REL E-610]

BYU > Religious Education > Religious Education > Course

Topics in the Old Testament emphasizing doctrinal, historical, and cultural background.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

History of the Christian Church [REL E-640]

BYU > Religious Education > Religious Education > Course

Background and history of Christianity from the first century A.D. to the present.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Interfaith Lecture Series [REL E-601R]

BYU > Religious Education > Religious Education > Course

To develop a deep and abiding appreciation and understanding of religious faiths, doctrines, practices, spiritual sensitivities, rites and rituals, and fundamental belief systems other than Mormonism. Also to foster an understanding and awareness of how other religions and faith-based traditions function in a modern military setting.

Hours: 0.5-2.0 Credit, Arr Lecture, Arr Lab

LDS Church History Graduate Seminar [REL E-625]

BYU > Religious Education > Religious Education > Course

Topics in LDS Church history, emphasizing contemporary current issues.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Military Ministry 1: Historical Foundations and Current Practices [REL E-641]

BYU > Religious Education > Religious Education > Course

Preparation of new military chaplains; learning the historical foundation of the U.S. Armed Forces Chaplaincy, emphasizing a practical ministry within a theological and spiritual context.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Available to prospective chaplains only.

Military Ministry 2: Homiletics [REL E-642]

BYU > Religious Education > Religious Education > Course

Preparation of new military chaplains; leading worship, preaching, and guiding the teaching ministry within a chapel and operational environment, emphasizing a practical ministry within a theological and spiritual context.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Available to prospective chaplains only.

Nursing and Medical Ethics [REL E-605]

BYU > Religious Education > Religious Education > Course

Overview of ethical principles and theories, emphasizing role of ethics in nursing; instruction and practice in advanced oral and written communication skills.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Pastoral Counseling Lab [REL E-600A]

BYU > Religious Education > Religious Education > Course

Introducing chaplain candidates to basic pastoral counseling skills used in the military. Various models of pastoral counseling; how to proved pastoral counseling in a variety of situations common in a military setting.

Hours: 1.0 Credit, 0.0 Lecture, 1.0 Lab

Project [REL E-698R]

BYU > Religious Education > Religious Education > Course

Project based on an approved topic that has practical ministry application for Chaplaincy MA students or that has practical pedagogical application for Religious Education MA students.

Hours: 0.5-6.0 Credit, Arr Lecture, Arr Lab
Prerequisites: Committee consent.

Research Methods in Religious Education [REL E-595]

BYU > Religious Education > Religious Education > Course

Methodology in and resources for research in the four areas of focus: Church History and Doctrine, Old Testament, New Testament, and Book of Mormon.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Scripture Teaching [REL E-501]

BYU > Religious Education > Religious Education > Course

Theory, methodology, and issues of scripture-based teaching in religious education.

Hours: 2.0 Credit, 2.0 Lecture, 0.0 Lab

World Religions [REL E-632]

BYU > Religious Education > Religious Education > Course

Doctrines, teachings, world views, and practices of the world's great religions, including Christianity, Islam, Judaism, Buddhism, Hinduism, Confucianism, Sikhism, and Bahai.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

World Religions and Area Analysis [REL E-631]

BYU > Religious Education > Religious Education > Course

Focuses on the various Islams (Sunni, Shia, and Sufi) and groups of interest (Hezbolah, al-Qaeda, Taliban, etc.) and how they influence areas of interest (e.g., Middle East).

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

World Religions and Security Analysis [REL E-630]

Focuses on how religion influences our national policy and more specifically provides a framework for assessing how religion impacts the military operational environment where chaplains advise commanders.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Alford, Kenneth Lowell

Professor
Religious Education
PhD, George Mason University, 2000
Research Interest: Doctrine and Covenants

Ball, Terry Briggs

Professor
Religious Education
PhD, Brigham Young University, 1992
Research Interest: Archeobotany; Old Testament

Baugh, Alexander Lewis

Professor
Religious Education
PhD, Brigham Young University, 1996
Research Interest: Church History

Belnap, Daniel Lee

Associate Professor
Religious Education
PhD, University of Chicago, 2007
Research Interest: Ancient Near Eastern Studies

Bennett, Richard Edmond

Professor
Religious Education
PhD, Wayne State University, 1984
Research Interest: LDS Church History

Blumell, Lincoln Harris

Associate Professor
Religious Education
PhD, University of Toronto, 2009
Research Interest: New Testament, Text Language

Boatright, Allen Blake

Adjunct Faculty
Religious Education
PhD, Erskine Theological Seminary, 2009
Research Interest: Military Chaplaincy, Horse Therapy and PTSD

Chadwick, Jeffrey R

Professor
Religious Education
PhD, University of Utah, 1992
Research Interest: Biblical Archaeology; New Testament

Cope, Rachel

Associate Professor
Religious Education
PhD, Syracuse University, 2009
Research Interest: American Religious History

Dirkmaat, Gerrit J

Assistant Professor
Religious Education
PhD, University of Colorado, 2010
Research Interest: American History

Dorius, Guy Lewis

Teaching Professor
Religious Education
PhD, Brigham Young University, 1994
Research Interest: Family Studies

Dyer, William J

Assistant Professor
Religious Education
PhD, University of Illinois-Urbana Champaign, 2009
Research Interest: Family Studies, Statistical Modeling

Esplin, Scott C

Professor
Religious Education
PhD, Brigham Young University, 2006
Research Interest: Church History and Doctrine

Frederick, Nicholas J

Assistant Professor
Religious Education
PhD, Claremont Graduate University, 2013
Research Interest: Intertextual Relationship Between the Text of the Bible and Mormon Scripture

Freeman, Robert C

Professor
Religious Education
JD, Western State University, 1989
Research Interest: Twentieth-Century Church History

Gaskill, Alonzo L

Professor
Religious Education
PhD, Trinity Theology Seminary, 2000
Research Interest: Patristics; Symbolism; Catholicism

Goodman, Michael A

Associate Professor
Religious Education
PhD, Brigham Young University, 2004
Research Interest: Marriage and Family

Hauglid, Brian Michael

Associate Professor
Religious Education
PhD, University of Utah, 1998
Research Interest: Pearl of Great Price; World Religions

Haws, John B

Associate Professor
Religious Education
PhD, University of Utah, 2010
Research Interest: 20th Century LDS History

Hedges, Andrew Horace

Associate Professor
Religious Education
PhD, University of Illinois at Urbana-Champaign, 1996
Research Interest: American History

Hilton, John L

Associate Professor
Religious Education
PhD, Brigham Young University, 2010
Research Interest: Book of Mormon

Hull, Kerry Michael

Professor
Religious Education
PhD, The University of Texas at Austin, 2003
Research Interest: Linguistic Anthropology

Huntsman, Eric D

Professor
Religious Education
PhD, University of Pennsylvania, 1997
Research Interest: New Testament Studies; Early Christianity

Judd, Daniel K

Professor
Religious Education
PhD, Brigham Young University, 1987
Research Interest: Religion and Mental Health

Judd, Frank F

Associate Professor
Religious Education
PhD, University of North Carolina, Chapel Hill, 2003
Research Interest: New Testament

Korth, Byran Baird

Associate Professor
Religious Education
PhD, Auburn University, 2000
Research Interest: Human Development and Family Studies

Ludlow, Jared W

Professor
Religious Education
PhD, University of California, Berkeley, 2000
Research Interest: Book of Mormon; New Testament

MacKay, Michael Hubbard

Assistant Professor
Religious Education
PhD, University of York, 2009
Research Interest: Church History

Manscill, Craig Kent

Associate Professor
Religious Education
PhD, Brigham Young University, 1987
Research Interest: 19th Century Church History

Merrill, Byron Robert

Teaching Professor
Religious Education
JD, University of California, Davis, 1975
Research Interest: Book of Mormon

Minert, Roger

Professor
Religious Education
PhD, Ohio State University, 1991
Research Interest: Book of Mormon; Pearl of Great Price; New Testament

Muhlestein, Kerry M

Professor
Religious Education
PhD, University of California at Los Angeles (UCLA), 2003
Research Interest: Old Testament; Pearl of Great Price

Newell, Lloyd David

Professor
Religious Education
PhD, Brigham Young University, 1999
Research Interest: Marriage and Family; Teaching of the Living Prophets

Ogletree, Mark Dryden

Associate Professor
Religious Education
PhD, Utah State University, 2000
Research Interest: Prophetic Teachings on Marriage and Family Issues

Ostler, Craig James

Professor
Religious Education
PhD, Brigham Young University, 1995
Research Interest: Doctrine and Covenants

Pike, Dana M

Professor
Religious Education
PhD, University of Pennsylvania, 1990
Research Interest: Hebrew Bible and Ancient Near Eastern Studies

Properzi, Mauro

Associate Professor
Religious Education
PhD, Durham University, 2009
Research Interest: World Religions

Richardson, Matthew O

Professor
Religious Education
EdD, Brigham Young University, 1996
Research Interest: LDS Marriage and Family

Seely, David Rolph

Professor
Religious Education
PhD, University of Michigan, 1990
Research Interest: Hebrew Bible and Ancient Near Eastern Studies

Skinner, Andrew C

Professor
Religious Education
PhD, University of Denver, 1986
Research Interest: Intertestamental Period; Near Eastern History

Strathearn, Gaye

Associate Professor
Religious Education
PhD, Claremont Graduate University, 2004
Research Interest: New Testament and Christian Origins

Sweat, Anthony R

Assistant Teaching Professor
Religious Education
PhD, Utah State University, 2011
Research Interest: Doctrine and Covenants

Swift, Charles L

Associate Professor
Religious Education
PhD, Brigham Young University, 2003
Research Interest: Scripture as Sacred Literature; Literature as Christianity

Theodore, Vance P

Adjunct Faculty
Religious Education
PhD, Kansas State University, 2011
Research Interest: Family Studies, Military Chaplaincy

Top, Brent L

Professor
Religious Education
PhD, Brigham Young University, 1984
Research Interest: LDS Doctrine

Wayment, Thomas Arvel

Professor
Religious Education
PhD, Claremont Graduate School, 2000
Research Interest: New Testament

Whitchurch, David M

Associate Professor
Religious Education
PhD, Brigham Young University, 1991
Research Interest: New Testament; Old Testament; Book of Mormon; History of English Bible; Biblical Geography

Wilcox, Bradley Ray

Associate Teaching Professor
Religious Education
PhD, University of Wyoming, 1994
Research Interest: Curriculum and Instruction, Focusing on Literacy

Wilkinson, Gregory Ernest

BYU > Religious Education > Religious Education > Faculty

Assistant Professor
Religious Education
PhD, University of Iowa, 2009
Research Interest: World Religions

Wilson, Keith Jay

BYU > Religious Education > Religious Education > Faculty

Associate Professor
Religious Education
PhD, University of Utah, 1995
Research Interest: Educational Administration

Woodger, Mary Jane

BYU > Religious Education > Religious Education > Faculty

Professor
Religious Education
EdD, University of Utah, 1997
Research Interest: LDS Women's History

Woods, Fred Emmett

BYU > Religious Education > Religious Education > Faculty

Professor
Religious Education
PhD, University of Utah, 1991
Research Interest: Middle East Studies

Social Work

BYU > College of Family, Home, and Social Sciences > Department

Address

Social Work
2190 JFSB
801-422-3282
msw@byu.edu

Programs

Social Work [735960]

The Master of Social Work program at Brigham Young University is accredited by the Council on Social Work Education.

The mission of the School of Social Work at Brigham Young University is to support the overall mission of BYU and the Church of Jesus Christ of Latter-day Saints by generating new knowledge and by educating and training students to use the appropriate knowledge, values and skills of the social work profession to serve children and families within their environment and the context of their specific cultures.

Director and Graduate Coordinator: Gordon E. Limb Field Education Director: Wendy Sheffield

Resources & Opportunity

The School of Social Work utilizes theComprehensive Clinic, an interdisciplinary training and research facility. The facility houses state-of-the-art video and computer equipment, as well as a staff of skilled technicians and staff to support graduate student and faculty research.

Faculty research interests currently include: Aging; American Indian families and children; behavioral health of National Guard and Reserve military service members and their families, including resiliency, suicide interventions, perceived stigma, barriers to care and adequacy of interventions; health disparities and life transitions among at-risk, minority, and global youth populations; HIV prevention; HIV/AIDS in Sub-Saharan Africa; intersectionality of poverty, education inequality and gender; mental health; migration and refugees; orphaned and vulnerable children; refugee resettlement; religion and spirituality; social work practice; substance abuse treatment; youth development in Sub-Saharan Africa. Certification and Licensure: MSW students can take courses that lead to a Gerontology certificate (Soc W 581), and School Social Work licensure (Soc W 580).

For a more detailed description of the graduate program requirements, see http://socialwork.byu.edu.

Financial Assistance

The BYU School of Social Work offers the following financial aid opportunities: Full- and partial-tuition scholarships, paid research assistant positions, and internships paid by community agencies. Applicants should apply for admission and financial aid concurrently. Notifications of financial aid will be included in the letter of acceptance. Typically, MSW students are offered a financial aid package between $10,000-$20,000.

Social Work (MSW) [735960]

One graduate degree is offered in the School of Social Work: Social Work - MSW. The concentration of curriculum focuses on preparation for clinical practice and research with families and children. The School of Social Work MSW curriculum is focused on preparing students to work with families and children, through one of two emphases: Clinical and Research. Forty students are admitted each year.

> Clinical Emphasis: Students who apply to this emphasis will become practitioners or clinicians with strong direct clinical practice skills. Alumni from this emphasis work in mental health and other direct practice settings, go on to receive LCSW licensure, and work toward becoming agency directors and administrators of social work organizations.
>
> Research Emphasis: Students who apply to this emphasis are expected to go on for advanced training in top social work PhD programs. Research emphasis students, like those in the clinical emphasis, will receive strong clinical training and, in preparation for PhD level studies, they will 1) take advanced research courses outside of social work as part of their elective requirements (instead of clinical electives), and 2) submit their research project for professional publication. Alumni from this emphasis will go on to become university professors, work in a research or policy arena, or receive advanced clinical training.

Requirements for Degree

Clinical and Research Emphasis

> Credit Hours: 60 (54 major and 6 elective hours)
> All students are required to complete a Master's Research Project.

For a more detailed description of the graduate program requirements, see http://socialwork.byu.edu.

1. Write a 4 to 6-page statement of intent specific to Social Work. Instructions are found on the department website. http://socialwork.byu.edu
2. List prerequisite courses you have taken - in the Standards and Prerequisites Section.
3. One page resume - upload in the online application.
4. Optional Scholarship application - upload to department documents in the online application.

Comparative International Social Welfare Policy [SOC W-681]

Social welfare policies of various countries. Solving global social problems within framework of human rights directives.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: MSW students only, or instructor's consent.

Crisis Intervention [SOC W-570]

BYU > College of Family, Home, and Social Sciences > Social Work > Course

Assessment and intervention in crisis situations with clients.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Directed Readings [SOC W-595R]

BYU > College of Family, Home, and Social Sciences > Social Work > Course

Hours: 0.5-3.0 Credit, 0.0 Lecture, 0.0 Lab
Prerequisites: Instructor's consent.

Family Policy and Law [SOC W-631]

BYU > College of Family, Home, and Social Sciences > Social Work > Course

The law relative to formation, functioning, and dissolution of families and delivery of social services to them.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Field Internship 1 [SOC W-654R]

BYU > College of Family, Home, and Social Sciences > Social Work > Course

Internship in social service agencies to examine relationship between theory and practice.

Hours: 1.0-4.0 Credit, 0.0 Lecture, Arr Lab
Prerequisites: Concurrent with Soc W 614R; first-year field placement; MSW students only.

Field Internship 2 [SOC W-655R]

BYU > College of Family, Home, and Social Sciences > Social Work > Course

Internship in social service agencies to examine relationship between theory and practice.

Hours: 1.0-2.0 Credit, 0.0 Lecture, Arr Lab
Prerequisites: Concurrent with Soc W 615; second-year field placement; MSW students only.

Global Issues of Children at Risk [SOC W-585]

BYU > College of Family, Home, and Social Sciences > Social Work > Course

Analyzing major challenges facing children and their families globally, including poverty, malnutrition, poor health care, gender-based discrimination, child labor and sexual exploitation, AIDS orphans, child soldiers, and refugees.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Human Behavior and Social Environment [SOC W-620]

BYU > College of Family, Home, and Social Sciences > Social Work > Course

Draws from ecosystems, lifespan, and other theoretical perspectives to examine persons in their social environment as individuals, members of families, groups, organizations, and communities. Considers cultural, social, psychological, biological, and spiritual forces.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: MSW students only, or instructor's consent.

Human Sexuality and Social Work Practice [SOC W-674]

BYU > College of Family, Home, and Social Sciences > Social Work > Course

Overview of human sexuality. Introduction to treatment of sexual problems and disorders.

Hours: 2.0 Credit, 2.0 Lecture, 0.0 Lab
Prerequisites: SocW 624 or instructor's consent.

Independent Research [SOC W-697R]

BYU > College of Family, Home, and Social Sciences > Social Work > Course

Writing for professional publication. Faculty-supervised research for organizing, writing, and submitting the master's research project for publication.

Hours: 1.0-3.0 Credit, 0.0 Lecture, 0.0 Lab
Prerequisites: Instructor's consent.

Integrative Field Seminar 1 [SOC W-614R]

BYU > College of Family, Home, and Social Sciences > Social Work > Course

Classroom seminar to examine relationship between theory and practice as it relates to the field experience at the foundational level.

Hours: 1.0-2.0 Credit, Arr Lecture, 0.0 Lab
Prerequisites: Concurrent with Soc W 654R; first-year field placement; MSW students only.

Integrative Field Seminar 2 [SOC W-615R]

BYU > College of Family, Home, and Social Sciences > Social Work > Course

Classroom seminar to examine relationship between theory and practice as it relates to the field experience at an advanced level.

Hours: 1.0 Credit, 1.0 Lecture, 0.0 Lab
Prerequisites: Concurrent with Soc W 655R; second-year field placement; MSW students only.

Interventions for Treating Substance Use Disorders [SOC W-675]

BYU > College of Family, Home, and Social Sciences > Social Work > Course

Full spectrum of substance use interventions: intervening for treating substance use disorders with selected special populations.

Hours: 2.0 Credit, 2.0 Lecture, 0.0 Lab
Prerequisites: MSW students only, or instructor's consent.

Leadership and Social Work Practice with Communities & Organizations [SOC W-664]

BYU > College of Family, Home, and Social Sciences > Social Work > Course

Empowering and engaging with communities and organizations to address social problems and improve organizational functioning utilizing effective leadership strategies.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: MSW students only, or instructor's consent.

Master's Research Project [SOC W-698R]

BYU > College of Family, Home, and Social Sciences > Social Work > Course

Applying research and statistical methods to evaluative, experimental, and survey studies in social work. Research project of publishable quality required.

Hours: 1.0-3.0 Credit, Arr Lecture, 0.0 Lab
Prerequisites: MSW students only.

Motivational Interviewing [SOC W-682]

BYU > College of Family, Home, and Social Sciences > Social Work > Course

Motivational interviewing (MI) is a collaborative and goal-oriented counseling style designed to increase motivation and commitment in clients. MI is well suited for clients who are ambivalent about making personal or lifestyle changes because the counselor helps the client make their own argument for change. This course is intended to provide students with a thorough and practical introduction to this counseling approach.

Hours: 2.0 Credit, 2.0 Lecture, 0.0 Lab

Organizational Governance and Executive Leadership in Human Services Administration [SOC W-665]

BYU > College of Family, Home, and Social Sciences > Social Work > Course

Key managerial functions of complex organizations and institutions; administrative theory and selected management techniques.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: MSW students only, or instructor's consent.

Pharmacology [SOC W-680R]

BYU > College of Family, Home, and Social Sciences > Social Work > Course

Introduction to foundation of drug interactions from both prescription and natural herb remedies; survival, morbidity, quality of life, neurohormonal changes, symptoms, treatment indications.

Hours: 2.0 Credit, 2.0 Lecture, 0.0 Lab

Play Therapy [SOC W-671]

BYU > College of Family, Home, and Social Sciences > Social Work > Course

History and development of play therapy; model for practical application and child-centered theoretical approaches; primary emphasis on clinical child-centered play therapy.

Hours: 2.0 Credit, 2.0 Lecture, 0.0 Lab
Prerequisites: MSW students only, or instructor's consent.

Program & Practice Evaluation in Social Work [SOC W-606]

BYU > College of Family, Home, and Social Sciences > Social Work > Course

Students engage in practice-informed research and research-informed practice. Practice evaluation (at the case level) and program evaluation (across multiple cases) are covered in this course.

Hours: 2.0 Credit, 2.0 Lecture, 0.0 Lab
Prerequisites: MSW students only, or instructor's consent.

Research Methods in Social Work [SOC W-603]

BYU > College of Family, Home, and Social Sciences > Social Work > Course

Applying quantitative and qualitative social work research. Philosophy of social science, problem formulation, research designs, ethics, sampling, and data collection methods.

Hours: 2.0 Credit, 2.0 Lecture, 0.0 Lab
Prerequisites: MSW students only, or instructor's consent.

Selected Fields of Practice [SOC W-680R]

BYU > College of Family, Home, and Social Sciences > Social Work > Course

Current problems and treatments in social work practice.

Hours: 1.0-3.0 Credit, ARR Lecture, 0.0 Lab
Prerequisites: Instructor's consent.

Social Justice and Diversity in Social Work Practice [SOC W-623]

BYU > College of Family, Home, and Social Sciences > Social Work > Course

Building self awareness and understanding of power, privilege, and difference. Increasing cultural humility, empathy, and engagement in social justice and diversity in practice.

Hours: 2.0 Credit, 2.0 Lecture, 0.0 Lab
Prerequisites: MSW students only.

Social Services for the Aging [SOC W-581]

BYU > College of Family, Home, and Social Sciences > Social Work > Course

Process and impact of social service delivery systems on the aged.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Social Welfare Policy [SOC W-630]

BYU > College of Family, Home, and Social Sciences > Social Work > Course

Examines how paradigms, values, and history inform current social welfare policies. Considers welfare, economic, health, and family policies and programs with attention to policy generation, analysis, and advocacy.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: MSW students only, or instructor's consent.

Social Work Assessment [SOC W-622]

BYU > College of Family, Home, and Social Sciences > Social Work > Course

The following major topics are covered: current systems of psychiatric diagnosis (e.g., DSM-5, ICD-10), suicide risk assessment and crisis response planning, cultural assessment and formulation, strengths-based assessments. The following assessment process skills are covered: client-centered interviewing in assessment and providing client-centered assessment feedback.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: MSW students only, or instructor's consent.

Social Work Direct Practice Skills: Engaging with Individuals, Families and Groups [SOC W-660]

BYU > College of Family, Home, and Social Sciences > Social Work > Course

Foundation course for graduate-level clinical social work practice emphasizing the development of individual and group engagement skills.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: MSW students only.

Social Work in the School Setting [SOC W-580]

BYU > College of Family, Home, and Social Sciences > Social Work > Course

Overview of knowledge and skills essential to the practice of social work in educational settings; emphasizes practical interventions when working with student/family/teacher/community resources.

Hours: 2.0 Credit, 2.0 Lecture, 0.0 Lab

Social Work Practice Models: Intervening with Individuals [SOC W-661]

BYU > College of Family, Home, and Social Sciences > Social Work > Course

Specific and predominate social work direct practice theories and models applied to counseling and with clinical populations.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: MSW students only.

Social Work Practice with Children and Adolescents [SOC W-667]

BYU > College of Family, Home, and Social Sciences > Social Work > Course

Social work knowledge and practice skills needed to engage, assess, and intervene with children, adolescents, and their families. Evidence-based practices adapted for children, including a comprehensive bio-psycho-social-spiritual and developmental assessment, are considered. Focus on models for intervening with common mental illnesses, trauma, and family and peer difficulties typical of this age group.

Hours: 2.0-3.0 Credit, Arr Lecture, Arr Lab
Prerequisites: MSW students only.

Social Work Practice with Couples & Families [SOC W-624]

BYU > College of Family, Home, and Social Sciences > Social Work > Course

Knowledge and skills related to practice theories used when working with couples and families. Practice models of family treatment are integrated and compared with clinical social work practice.

Hours: 2.0-3.0 Credit, Arr Lecture, Arr Lab
Prerequisites: MSW students only, or instructor's consent.

Social Work Practice with Groups: Engaging, Assessing and Intervening with Group Populations [SOC W-663]

BYU > College of Family, Home, and Social Sciences > Social Work > Course

Integrated seminar experience that links group work theory and practice incorporating social work ethics and values. Special attention is given to dealing with the interpersonal dynamics that occur in group work, and learning to effectively and professionally receive and extend feedback.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: MSW students only.

Special Topics in Advanced Clinical Practice [SOC W-670R]

BYU > College of Family, Home, and Social Sciences > Social Work > Course

Various topics offered as need or interest arises.

Hours: 1.0-3.0 Credit, ARR Lecture, 0.0 Lab
Prerequisites: Instructor's consent.

Specialized Clinical Practice [SOC W-669]

BYU > College of Family, Home, and Social Sciences > Social Work > Course

Polish direct practice skills for a seamless transition into community clinical practice agency settings. Focus on additional theories, models, and specialized populations, as well as on developing a professional identity as a clinical social worker.

Hours: 2.0-3.0 Credit, Arr Lecture, Arr Lab
Prerequisites: MSW students only.

Specialized Direct Social Work Practice [SOC W-666]

BYU > College of Family, Home, and Social Sciences > Social Work > Course

Knowledge and skills necessary to apply appropriate strategies for treating disorders, including depression, anxiety, substance use, and trauma. Exploration of the relationship between assessment and treatment, and the need for accountability in direct social work practice.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: MSW students only.

Spirituality in Social Work [SOC W-676]

BYU > College of Family, Home, and Social Sciences > Social Work > Course

Interface of religious and social work values, attitudes, and principles.

Hours: 2.0 Credit, 2.0 Lecture, 0.0 Lab
Prerequisites: Instructor's consent.

Statistical and Data Analysis in Social Work Research [SOC W-602]

BYU > College of Family, Home, and Social Sciences > Social Work > Course

Analyzing data using evidence-based approaches and interpreting major quantitative and qualitative and qualitative methods in social work.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: MSW students only, or instructor's consent.

Supervised Clinical Social Work Practicum [SOC W-611]

BYU > College of Family, Home, and Social Sciences > Social Work > Course

Client therapy session and clinical supervision in the BYU Comprehensive Clinic, including video taping of student therapy sessions.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: MSW students only.

Trauma-Informed Clinical Social Work Practice [SOC W-683]

BYU > College of Family, Home, and Social Sciences > Social Work > Course

How to work effectively with clients who have experienced trauma. Viewing client mental distress symptoms through a trauma lens, and preparation to work with clients who have experienced diverse forms of trauma. Upon completion, students will receive multiple online trauma certificates, including, but not limited to TF-CBT and CPT from MUSC (Medical University of South Carolina) and complex trauma; secondary traumatic stress; culture and trauma; family systems; terrorism, disaster and children; and military families through the National Child Traumatic Stress Network (NCTSN).

Hours: 2.0 Credit, 2.0 Lecture, 0.0 Lab
Prerequisites: Concurrent with Soc W 654R or Soc W 655R.

Dennis, Cory B

BYU > College of Family, Home, and Social Sciences > Social Work > Faculty

Assistant Professor
Social Work
PhD, University at Albany, State University of New York, 2012
Research Interest: Social Work

Limb, Gordon E

BYU > College of Family, Home, and Social Sciences > Social Work > Faculty

Associate Professor
Social Work
PhD, University of California, Berkeley, 2000
Research Interest: American Indian Child Welfare; Social Work Education; Spirituality

Shafer, Kevin M

BYU > College of Family, Home, and Social Sciences > Social Work > Faculty

Associate Professor
Social Work
PhD, The Ohio State University, 2009
Research Interest: Mental Health, Fatherhood and Fathering, Stepfamilies

Shaw, Stacey Ann

BYU > College of Family, Home, and Social Sciences > Social Work > Faculty

Assistant Professor
Social Work

Wood, David Samuel

BYU > College of Family, Home, and Social Sciences > Social Work > Faculty

Assistant Professor
Social Work
PhD, Arizona State University

Sociology

BYU > College of Family, Home, and Social Sciences > Department

Address

Sociology
2008 JFSB
801-422-3393
margaret_mccabe@byu.edu

Programs

Sociology [735864]

The aims of the graduate program in sociology are to educate students in the principles, theories, and methods of sociology; train them in an area of specialization; and create skilled professional teachers and researchers. Faculty in the department are active in producing both quality research and instruction. Graduate students have many opportunities for funding and involvement in research activities. Graduate students may also have opportunities to obtain experience in teaching undergraduate courses (as needed to support the department's course offerings) during the second year of their program.

The Department of Sociology currently offers an MS degree.

The Sociology Department admits an average of eight to twelve students to the master's program each fall semester. Full-time students making good progress in the program are expected to finish a master's degree in two years.

Chair: Richard B. Miller
Graduate Coordinator: Ben Gibbs

Resources & Opportunity

The Department of Sociology utilizes as valuable resources the School of Family Life, the survey computer lab, the college computing lab, graduate fellowships, and the Kennedy Center for International Studies. Funding and research opportunities can be sought through the Kennedy Center, Graduate Studies, and other campus and disciplinary entities, as well as through the department.

Faculty research interests cover a broad spectrum of social science research. However, the make-up of the department faculty generates most research in the following areas: family, stratification, social organization and change, ethnicity, community and delinquency.

For a more detailed description of the graduate program requirements, send for a copy of the department's bulletin or see our Web page at http://sociology.byu.edu.

Financial Assistance

The Department of Sociology offers graduate teaching and research assistantships. These are semester-long appointments with an expectation of twenty hours of work per week. Renewal of an assistantship is based on making satisfactory progress in the graduate program each semester. Financial assistance is also available through other agencies in the university.

Sociology (MS) [735864]

The master's degree prepares students for two career paths: (1) doctoral work beyond the master's degree and (2) professional careers at the master's level as teachers and researchers.

Requirements for Degree.

Credit hours (minimum 35): 29 course hours, including at least 23 hours of formal course work in sociology, plus 6 hours of thesis credits (Soc 699R). Only course work with a grade of B- or better is acceptable.
Required courses: Soc 600, 604, 605, 610; and for first-year graduate students 598R in fall and winter; minimum 15 additional hours of graduate sociology course work; demonstration of competence in sociological theory, research methods, and statistics.
Thesis.
Examination: oral defense of thesis.

Required Tests

GRE

Additional Requirements

1. Statement of intent

2. **Writing sample**

(Soc-MFHD) Advanced Statistical Methods [SOC-706R]

BYU > College of Family, Home, and Social Sciences > Sociology > Course

Topics include advanced structural equations and hierarchical linear models, or panel data techniques and generalized linear models.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Soc 605 or MFHD 605 or Psych 502.

(Soc-MFHD) Ethnographic Research Techniques [SOC-604]

BYU > College of Family, Home, and Social Sciences > Sociology > Course

Rationale, methods, and limitations of qualitative research; includes participant observation and hermeneutic skills.

Hours: 3.0 Credit, 0.0 Lecture, 0.0 Lab

(Soc-MFHD) Seminar in Family Relationships [SOC-692R]

BYU > College of Family, Home, and Social Sciences > Sociology > Course

Theory and research in topical areas of family study (topics presented on alternate years).

Hours: 0.5-3.0 Credit, 3.0 Lecture, 0.0 Lab

Advanced Social Psychology [SOC-650]

BYU > College of Family, Home, and Social Sciences > Sociology > Course

Processes of social influence, emphasizing theory and research testing. Basic principles of social behavior.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Classical Social Theory [SOC-610]

BYU > College of Family, Home, and Social Sciences > Sociology > Course

Philosophical foundations of sociological theory; works of major classical theorists such as Marx, Weber, Durkheim, Simmel, Mead, DuBois, Addams, and Parsons.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Soc 310, 311; or equivalents.

Complex Organizations [SOC-621]

BYU > College of Family, Home, and Social Sciences > Sociology > Course

Theoretical approaches and empirical studies of organizations, their structures, processes, and problems; studies of industrial organizations, universities, hospitals, etc.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Instructor's consent.

Contemporary Sociological Theory [SOC-611]

BYU > College of Family, Home, and Social Sciences > Sociology > Course

Recent developments in sociological theory. In-depth analysis of structure and assumptions of contemporary sociological theories.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Soc 310, 311, 610; or equivalents.

Directed Readings [SOC-595R]

BYU > College of Family, Home, and Social Sciences > Sociology > Course

Individualized reading program supervised by faculty member.

Hours: 0.5-3.0 Credit, 0.0 Lecture, 6.0 Lab

Directed Research [SOC-697R]

BYU > College of Family, Home, and Social Sciences > Sociology > Course

Hours: 0.5-3.0 Credit, 0.0 Lecture, 6.0 Lab

Doctoral Dissertation [SOC-799R]

BYU > College of Family, Home, and Social Sciences > Sociology > Course

Hours: 0.5-9.0 Credit, ARR Lecture, ARR Lab

Graduate Research Methods [SOC-600]

BYU > College of Family, Home, and Social Sciences > Sociology > Course

Introduction to philosophy of science, emphasizing research design and development of thesis prospectus, including strengths, limitations, and constraints of various methodologies.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: SFL 290 or Soc 300 or equivalent.

Intermediate Statistics [SOC-606]

BYU > College of Family, Home, and Social Sciences > Sociology > Course

Path analysis, factor analysis, and event history techniques.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Soc 306, 605; or equivalents.

Master's Thesis [SOC-699R]

BYU > College of Family, Home, and Social Sciences > Sociology > Course

Hours: 0.5-6.0 Credit, ARR Lecture, ARR Lab

Multiple Regression Analysis [SOC-605]

BYU > College of Family, Home, and Social Sciences > Sociology > Course

Ordinary least squares and logistic regression techniques. Data acquisition, management, analysis, and report writing.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Soc 306 or instructor's consent.

Pro-Seminar [SOC-598R]

BYU > College of Family, Home, and Social Sciences > Sociology > Course

Current developments in sociology including research, proposals, professional meetings, teaching, and finding a job.

Hours: 1.0 Credit, 1.0 Lecture, 0.0 Lab

Seminar in Deviance, Crime, and Corrections [SOC-681R]

BYU > College of Family, Home, and Social Sciences > Sociology > Course

In-depth analysis of current issues in the field. Tailored to student interests.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Soc 380, 381 or 383, or instructor's consent.

Seminar in Race and Ethnic Relations [SOC-623]

BYU > College of Family, Home, and Social Sciences > Sociology > Course

Major theories of race-ethnic relations; critical issues in the field.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Seminar in Survey Research and Sociological Measurement [SOC-608]

BYU > College of Family, Home, and Social Sciences > Sociology > Course

Survey research techniques in the behavioral sciences, emphasizing research and sampling designs. Measurement techniques, emphasizing consequences of measurement decisions.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Seminar on Population Analysis [SOC-645]

BYU > College of Family, Home, and Social Sciences > Sociology > Course

Availability, use, and interpretation of population data for local, state, and national areas applied to planning and evaluation.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Soc 306 or equivalent.

Social Stratification [SOC-622]

BYU > College of Family, Home, and Social Sciences > Sociology > Course

Status, class, and power systems in various societies.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Soc 111 or equivalent.

Sociology of Religion [SOC-525]

BYU > College of Family, Home, and Social Sciences > Sociology > Course

Influences of social factors in the development of various religious systems.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Soc 111, 325, or instructor's consent.

Sociology of Rural Communities [SOC-528]

BYU > College of Family, Home, and Social Sciences > Sociology > Course

Review and critique of major theoretical and methodological approaches to the study of community, with a focus on rural communities.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Soc 311, 370, or instructor's consent.

Special Topics in Sociology [SOC-590R]

BYU > College of Family, Home, and Social Sciences > Sociology > Course

Course content varies from year to year.

Hours: 0.5-3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Instructor's consent.

Theory and Research in Social Organization [SOC-620]

BYU > College of Family, Home, and Social Sciences > Sociology > Course

Graduate survey of the field of social organization and the core subfields therein.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Admission to graduate sociology programs; others admitted by instructor's consent.

Child, Curtis D

BYU > College of Family, Home, and Social Sciences > Sociology > Faculty

Associate Professor
Sociology
PhD, Indiana University at Bloomington, 2011
Research Interest: Organizations; Economic Sociology; Political Sociology; Social Movements; Civil Society and the Nonprofit Sector; Research Methods

Cope, Michael R

BYU > College of Family, Home, and Social Sciences > Sociology > Faculty

Assistant Professor
Sociology
PhD, Louisiana State University, 2015
Research Interest: Rurality, Community, Social Change, Social Stratification, Disasters, Theory, Identity Formation, Research Methods

Dahlin, Eric Carl

BYU > College of Family, Home, and Social Sciences > Sociology > Faculty

Assistant Professor
Sociology
PhD, University of Minnesota, 2010
Research Interest: Organization Innovation, Institutional Change, Creativity, Social Networks, Work-Family Conflict

Dufur, Mikaela Jean

Associate Professor
Sociology
PhD, Ohio State University, 2000
Research Interest: Stratification; Family; Education; Children and Youth; Sport

Erickson, Lance David

Associate Professor
Sociology
PhD, University of North Carolina, Chapel Hill, 2005
Research Interest: Life Course; Family; Adolescence

Forste, Renata A

Professor
Sociology
PhD, University of Chicago, 1992
Research Interest: Demography; Family; Child and Adolescent Health

Gabriel, Ryan Patrick

Assistant Professor
Sociology
PhD, University of Washington, 2016
Research Interest: Residential Segregation, Race/Racism, Stratification, Diverse Populations, Historical Demography, Quantitative Methods

Gibbs, Benjamin Guild

Associate Professor
Sociology
PhD, Ohio State University, 2009
Research Interest: Social Stratification; Social Mobility, Sociology of Education, Class/Race/Gender

Hoffmann, John P

Professor
Sociology
PhD, State University of New York, Albany, 1991
Research Interest: Criminology; Statistics; Sociology of Religion

Jarvis, Jonathan A

Assistant Professor
Sociology
PhD, University of Hawaii, 2015
Research Interest: Sociology of Education, Global Education, Social Stratification, Globalization, Family, Immigration

Knapp, Stanley Jay

BYU > College of Family, Home, and Social Sciences > Sociology > Faculty

Associate Professor
Sociology
PhD, Florida State University, 1996
Research Interest: Family; Social Theory

Rugh, Jacob S

BYU > College of Family, Home, and Social Sciences > Sociology > Faculty

Assistant Professor
Sociology
PhD, Princeton University, 2012
Research Interest: Race and Ethnicity; Segregation; Stratification; Urban Sociology; Immigration

Sanders, Scott Russell

BYU > College of Family, Home, and Social Sciences > Sociology > Faculty

Assistant Professor
Sociology
PhD, Cornell University, 2013
Research Interest: Demography; Poverty; Health Care

Ward, Carol Jane

BYU > College of Family, Home, and Social Sciences > Sociology > Faculty

Associate Professor
Sociology
PhD, University of Chicago, 1992
Research Interest: Sociology

Spanish and Portuguese

BYU > College of Humanities > Department

Address

Spanish and Portuguese
3190 JFSB
801-422-2838
spanportgradstudies@byu.edu

Programs

Portuguese [555496]
Spanish [555498]

Two degrees are offered through the Department of Spanish and Portuguese: Portuguese-MA and Spanish-MA.

Most students who complete a master's degree in the department either seek jobs in secondary education or continue their studies on the PhD level. Some have located positions with government agencies or in the business sector. Each year about fifteen students are admitted to the program.

The program is designed for a student to complete the degree in twenty-four months of intensive work.

Chair: Jeffrey Turley
Graduate Coordinator: Brian Price
Associate Graduate Coordinator: Erik Matthew Larson

Resources & Opportunity

Faculty research interests currently include:

1. **Acquisition of Spanish as a second language (language teaching methodology, teacher training, oral proficiency testing, computer-administered placement and speaking tests)**
2. **Hispanic literature (Spanish medieval literature, Spanish Golden Age literature, eighteenth- and nineteenth-century Spanish literature, Spanish American women writers, Spanish women writers, Hispanic film, Spanish American poetry, modern Spanish poetry, literature and philosophy, contemporary Hispanic theatre, Mexican prose, metafiction and metatheatre, Hispanic romanticism, Spanish realist narrative, intersemiotic analogies, literature and science, Spanish cultural studies)**
3. **Portuguese literature (classical Portuguese literature, Brazilian literature)**
4. **Hispanic linguistics (Caribbean sociolinguistics, phonetic spectrography; Romance semantics, Hispanic paleography, mood in the nominal clause, language contact, bilingualism)**

Financial Assistance

Students may receive a position as a student instructor depending on departmental needs and on their qualifications. All potential student instructors must have completed a 3-hour methodology course, and they must participate in an intensive workshop held during the week previous to the commencement of fall classes. Continuing employment and the number of sections assigned to candidates each semester depend on department needs and on the students' performance as instructors and on their own academic progress. Additionally, most students receive partial scholarship grants (generally 50-80% of required courses) to help cover tuition expenses.

Portuguese (MA) [555496]

Students must choose one of the following areas of specialization before applying to the program: Luso-Brazilian Literatures, Portuguese Linguistics, and Portuguese Pedagogy

Requirements for Luso-Brazilian Literatures Specialization:

Credit hours: 33.
Core required courses: 21 hours, including Port 601B, three 1-credit mini-courses (2 in literature and one in linguistics, pedagogy, or literature), and five courses in Luso-Brazilian Literature.
Electives (6 hours): 3 hours in Portuguese linguistics and 3 hours in pedagogy. (Span/Port 673R does not count toward this requirement.)
Thesis or two-paper option: 6 credit hours of Port 699R, plus an oral defense.
Examinations: comprehensive, culminating written exam in specialty.
Completion of three semesters (college level or equivalent) of a second foreign language other than English in addition to language of specialization.
Teaching requirement: teach at least one Spanish or Portuguese language class (100/200 level).

Requirements for Portuguese Linguistics Specialization:

Credit hours: 33.
Core required courses: 18 hours, including Port 601A, Port 520, Port 625, and Port 626, either Port 521 or Port 522, and either Port 529R, Span 622, or Span 629R.
Electives (9 hours): 6 hours in Luso-Brazilian literature and 3 hours in pedagogy. (Span/Port 673R does not count toward this requirement.)
Thesis or two-paper option: 6 credit hours of Port 699R, plus an oral defense.
Examinations: comprehensive, culminating, written exam in specialty.
Completion of three semesters (college level or equivalent) of a second foreign language other than English in addition to language of specialization.
Teaching requirement: teach at least one Spanish or Portuguese language class (100/200 level).

Requirements for Portuguese Pedagogy Specialization:

Credit hours: 33.

Core required courses: 18 hours, Port 601C, Span 671, Span 676; two courses in Spanish or Portuguese pedagogy; and three 1-credit mini-courses (2 in pedagogy and one in literature, linguistics, or pedagogy). (Span/Port 673R does not count toward the core requirement).
Electives (9 hours): 3 hours in Portuguese linguistics and 6 hours in Luso-Brazilian literature.
Thesis or project option: 6 credit hours of Port 698R or Port 699R, plus an oral defense.
Examinations: comprehensive, culminating written exam in specialty.
Completion of three semesters (college level or equivalent) of a second foreign language other than English in addition to language of specialization.
Teaching requirement: teach at least one Spanish or Portuguese language class (100/200 level).

Resume
Statement of Intent
The purpose of the statement of intent is to provide information which is not included in your application or academic records and which may be useful to the admissions committee. Write a carefully constructed statement of your academic preparation and goals, indicating how graduate work fits into those goals. Statements are generally 1-2 pages but may have more specific requirements by department. This statement gives the admissions committee an opportunity to learn the following:
Your preparation and background for the program to which you are applying and the special emphasis you hope to pursue in it,
Your academic or professional goals and reasons for your choice of career,
Your particular academic or professional reasons for applying to Brigham Young University and the scholarly or professional contributions you expect to make to your program;
Your expected graduate degree completion date, and
Any special circumstances you wish the department to consider, such as whether or not you plan to attend full-time, circumstances that may have affected undergraduate academic performance, test scores, etc.
Writing Sample
An 8-10 page research paper in Portuguese. Papers written in English will not be accepted. If you do not have an 8-10 page research paper related to the area of emphasis to which you are applying (literature, linguistics, or pedagogy) you may submit two papers related to the area of emphasis as a single document to meet the 8-10 page requirement, expand a previously written research paper related to the area of emphasis, or create a new research paper exploring a topic related to the area of emphasis.
List of Advanced Language Courses
Please list any 300-level courses and above you have taken as outlined in the instructions below:
First column: List the university where the course was taken
Second column: List course number
Third column: List course title
Fourth column: List the grade you received in the class
References
Portuguese MA applicants must electronically submit three Letters of Recommendation. While academic references are preferred, we do accept professional references.

Spanish (MA) [555498]

Students must choose one of the following areas of specialization before applying to the program: Hispanic Literatures, Hispanic Linguistics, and Spanish Pedagogy.

Requirements for Hispanic Literatures Specialization:

Credit hours: 33.
Core required courses: 21 hours, including Span 601B, three 1-credit mini-courses (two in literature and one in linguistics, pedagogy, or literature), and five courses in Peninsular or Spanish American literature. At least two courses must be taken from each of the two regional emphases. (Span 638 and 602 may not be used to fulfill this minimum regional requirement.)
Electives (6 hours): 3 hours in Hispanic linguistics and 3 hours in Spanish pedagogy. (Span 673R does not count toward this requirement.)
Thesis or two-paper option: 6 credit hours of Span 699R, plus an oral defense.
Examinations: comprehensive, culminating written exam in specialty.
Completion of three semesters (college level or equivalent) of a second foreign language other than English in addition to language of specialization.
Teaching requirement: teach at least one Spanish language class (100/200 level).

Requirements for Hispanic Linguistics Specialization:

Credit hours: 33.
Core required courses: 21 hours, including Span 601A, Span 625, and Span 626, three 1-credit mini-courses (two in linguistics and one in literature or pedagogy), and three courses in Hispanic linguistics.
Electives (6 hours): 3 hours in Peninsular or Spanish American literature and 3 hours in Spanish pedagogy. (Span 673R does not count toward this requirement.)
Thesis or two-paper option: 6 credit hours of Span 699R, plus an oral defense.
Examinations: comprehensive, culminating, written exam in specialty.
Completion of three semesters (college level or equivalent) of a second foreign language other than English in addition to language of specialization.
Teaching requirement: teach at least one Spanish language class (100/200 level).

Requirements for Spanish Pedagogy Specialization:

Credit hours: 33.
Core required courses: 21 hours, Span 601C, Span 671, Span 676; three courses in Spanish Pedagogy; and three 1-credit mini-courses (two in pedagogy and one in literature, linguistics, or pedagogy). (Span 673R does not count toward the core requirement).
Electives (6 hours): 3 hours in Hispanic linguistics and 3 hours in Peninsular or Spanish American literature.
Thesis or project option: 6 credit hours of Span 698R or 699R, plus an oral defense.
Examinations: comprehensive, culminating written exam in specialty.
Completion of three semesters (college level or equivalent) of a second foreign language other than English in addition to language of specialization.
Teaching requirement: teach at least one Spanish language class (100/200 level).

Required Tests

TOEFL or IELTS (international applicants only)

Additional Requirements

Resume
Statement of Intent
The purpose of the statement of intent is to provide information which is not included in your application or academic records and which may be useful to the admissions committee. Write a carefully constructed statement of your academic preparation and goals, indicating how graduate work fits into those goals. Statements are generally 1-2 pages but may have more specific requirements by department. This statement gives the admissions committee an opportunity to learn the following:
Your preparation and background for the program to which you are applying and the special emphasis you hope to pursue in it,
Your academic or professional goals and reasons for your choice of career,
Your particular academic or professional reasons for applying to Brigham Young University and the scholarly or professional contributions you expect to make to your program;
Your expected graduate degree completion date, and
Any special circumstances you wish the department to consider, such as whether or not you plan to attend full-time, circumstances that may have affected undergraduate academic performance, test scores, etc.
Writing Sample
An 8-10 page research paper in Spanish. Papers written in English will not be accepted. If you do not have an 8-10 page research paper related to the area of emphasis to which you are applying (literature, linguistics, or pedagogy) you may submit two papers related to the area of emphasis as a single document to meet the 8-10 page requirement, expand a previously written research paper related to the area of emphasis, or create a new research paper exploring a topic related to the area of emphasis.
List of Advanced Language Courses
Please list any 300-level courses and above you have taken as outlined in the instructions below:
First column: List the university where the course was taken
Second column: List course number
Third column: List course title
Fourth column: List the grade you received in the class
References
Spanish MA applicants must electronically submit three Letters of Recommendation. While academic references are preferred, we do accept professional references.

Academic Internship: Portuguese Internship [PORT-599R]

BYU > College of Humanities > Spanish and Portuguese > Course

Hours: 1.0-3.0 Credit, 0.0 Lecture, 0.0 Lab
Prerequisites: Port 321; instructor's consent.

Academic Internship: Spanish Internship [SPAN-599R]

BYU > College of Humanities > Spanish and Portuguese > Course

Hours: 0.5-3.0 Credit, 0.0 Lecture, 0.0 Lab

Advanced Portuguese Grammar [PORT-520]

BYU > College of Humanities > Spanish and Portuguese > Course

Applying contemporary grammatical concepts to problems in Portuguese grammar.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

African Literature in Portuguese [PORT-661R]

BYU > College of Humanities > Spanish and Portuguese > Course

Modern authors from the five African nations whose official language is Portuguese: Angola Cabo Verde, Guine Bissau, Mozambique, and Sao Tome Pricipe. Authors include Jose Craveirinha, Mia Couto, Noemia de Sousa, Jose Tenreiro, Castro Soromenho, Luandino Vieira, Pepetala, Baltasar Lopes, among others.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Assessing Language and Culture Learning [SPAN-676]

BYU > College of Humanities > Spanish and Portuguese > Course

Methods of assessing language and culture learning, including the development of tests, questionnaires, portfolios, self- and peer-assessments, rubrics, and checklists.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Camoes [PORT-642]

BYU > College of Humanities > Spanish and Portuguese > Course

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Directed Research in Portuguese [PORT-680R]

BYU > College of Humanities > Spanish and Portuguese > Course

Under direction of faculty member, designing and conducting research project that covers material not normally presented in regular course work. Research paper required.

Hours: 1.0-3.0 Credit, ARR Lecture, 0.0 Lab
Prerequisites: Written proposal subject to departmental approval.

Directed Research in Spanish [SPAN-680R]

BYU > College of Humanities > Spanish and Portuguese > Course

Individualized study. Under direction of faculty member, designing and conducting research project that covers material not normally presented in regular course work. Research paper required.

Hours: 1.0-3.0 Credit, ARR Lecture, 0.0 Lab
Prerequisites: Written proposal subject to departmental approval.

Directed Teaching of Portuguese [PORT-673R]

BYU > College of Humanities > Spanish and Portuguese > Course

Supervised, practical experience in teaching Portuguese at the college level.

Hours: 1.0 Credit, 1.0 Lecture, 0.0 Lab
Prerequisites: Port 377 and assignment as student instructor of 100- or 200-level Portuguese course.

Directed Teaching of Spanish [SPAN-673R]

BYU > College of Humanities > Spanish and Portuguese > Course

Supervised, practical experience in teaching Spanish at the college level.

Hours: 1.0 Credit, 1.0 Lecture, 0.0 Lab
Prerequisites: Span 376 and assignment as student instructor of a 100- or 200-level course.

Don Quijote [SPAN-644]

BYU > College of Humanities > Spanish and Portuguese > Course

In-depth study of Cervantes's El ingenioso hidalgo don Quijote de la Mancha.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Span 441 or equivalent.

Early Spanish American Literature [SPAN-650R]

BYU > College of Humanities > Spanish and Portuguese > Course

Indigenous literature (Maya, Nahuatl, etc.) and other texts written in Spanish colonial America through eighteenth century.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Span 451 or equivalent.

Fernando Pessoa and Portuguese Literature [PORT-647]

BYU > College of Humanities > Spanish and Portuguese > Course

Seminar on one of the major European poets of the twentieth century and the only Portuguese poet on a par with Camões.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Golden Age Literature [SPAN-643R]

BYU > College of Humanities > Spanish and Portuguese > Course

Sixteenth- and seventeenth-century Spanish literature.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Span 441 or equivalent.

Hispanic Cinema [SPAN-638]

BYU > College of Humanities > Spanish and Portuguese > Course

Introduction to study of film; background in appreciating best of motion picture art in Spain and Spanish America.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Span 339 or equivalent.

Hispanic Dialectology [SPAN-622]

BYU > College of Humanities > Spanish and Portuguese > Course

Overview of the varieties of spoken Spanish.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Hispanic Linguistics and Research Methodology [SPAN-601A]

BYU > College of Humanities > Spanish and Portuguese > Course

Basic research fields in linguistics (i.e., phonology, philology, syntax, psycholinguistics), how research differs in each area, and specific theoretical issues associated with each. Bibliographical and field research methods and techniques of reporting findings.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Hispanic Theatre Production [SPAN-639R]

BYU > College of Humanities > Spanish and Portuguese > Course

Theory and practice of dramatic performance. Includes participation in play to be performed during semester.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Director's consent.

History of the Portuguese Language [PORT-522]

BYU > College of Humanities > Spanish and Portuguese > Course

Linguistic sources that contributed to formation of Portuguese.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

History of the Spanish Language [SPAN-522]

BYU > College of Humanities > Spanish and Portuguese > Course

Linguistic sources that contributed to formation of the Spanish language.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Literary Theory and Research Methodology [SPAN-601B]

BYU > College of Humanities > Spanish and Portuguese > Course

Introduction to literary theory, emphasizing major theoretical movements and strategies of literary interpretation. Bibliographical techniques, research methodology, and issues pertaining to the profession.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Literary Theory and Research Methodology [PORT-601B]

BYU > College of Humanities > Spanish and Portuguese > Course

Introduction to literary theory, emphasizing major theoretical movements and strategies of literary interpretation. Bibliographical techniques, research methodology, and issues pertaining to the profession.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Literature of the Lusophone World [PORT-662R]

BYU > College of Humanities > Spanish and Portuguese > Course

Authors from the eight nations whose official language is Portuguese, plus former colonies and regions of important Portuguese influence. Included are Luso-American and Azorean writers, as well as authors from East Timor (formerly Indonesia), Goa (India), and Macau (China).

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Luso-Brazilian Theatre Production [PORT-639R]

BYU > College of Humanities > Spanish and Portuguese > Course

Theory and practice of dramatic performance. Includes participation in a play to be performed during semester.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Machado de Assis [PORT-652]

BYU > College of Humanities > Spanish and Portuguese > Course

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Port 441, 451; or equivalents.

Master's Project [SPAN-698R]

BYU > College of Humanities > Spanish and Portuguese > Course

Candidates in nonthesis program may complete approved field project as their writing/research experience.

Hours: 1.0-6.0 Credit, ARR Lecture, ARR Lab
Prerequisites: Committee chair's consent.

Master's Project [PORT-698R]

BYU > College of Humanities > Spanish and Portuguese > Course

Hours: 1.0-6.0 Credit, ARR Lecture, ARR Lab

Master's Thesis [SPAN-699R]

BYU > College of Humanities > Spanish and Portuguese > Course

Hours: 0.5-9.0 Credit, ARR Lecture, ARR Lab

Master's Thesis [PORT-699R]

BYU > College of Humanities > Spanish and Portuguese > Course

Hours: 1.0-9.0 Credit, ARR Lecture, ARR Lab

Media and Technology in Foreign Language Instruction [SPAN-672]

BYU > College of Humanities > Spanish and Portuguese > Course

Applying modern technology and instructional media in teaching foreign languages.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Medieval Spanish Literature [SPAN-640]

BYU > College of Humanities > Spanish and Portuguese > Course

Spanish Literature from El Cantar de Mio Cid (1140) through La Celestina (1499).

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Span 441 or equivalent.

Nineteenth-Century Spanish Literature [SPAN-646R]

BYU > College of Humanities > Spanish and Portuguese > Course

Romanticism (1770s through 1870s) and/or the novels of Benito Perez Galdos and his contemporaries.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Span 441 or equivalent.

Portuguese Language Teaching Research Procedures [PORT-601C]

BYU > College of Humanities > Spanish and Portuguese > Course

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Portuguese Linguistics and Research Methodology [PORT-601A]

BYU > College of Humanities > Spanish and Portuguese > Course

Basic research fields in linguistics (i.e., phonology, philology, syntax, psycholinguistics), how research differs in each area, and specific theoretical issues associated with each. Bibliographical and field research methods and techniques of reporting findings.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Portuguese Morphosyntax [PORT-625]

BYU > College of Humanities > Spanish and Portuguese > Course

Linguistic study of morphological and syntactic structure of Portuguese.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Portuguese Phonetics and Phonology [PORT-626]

BYU > College of Humanities > Spanish and Portuguese > Course

Systematic study of articulatory and acoustic Portuguese phonetics and of structural and generative approaches to phonological description of Portuguese.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Port 326 or equivalent.

Principles of Foreign Language Learning and Teaching [SPAN-671]

BYU > College of Humanities > Spanish and Portuguese > Course

Basic theories and principles of language learning and teaching. History, current research, practices, trends, and issues.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Problems in Spanish Grammar [SPAN-520]

BYU > College of Humanities > Spanish and Portuguese > Course

Application of contemporary grammatical concepts to problems in Spanish grammar.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Research Designs in Hispanic Language Teaching [SPAN-601C]

BYU > College of Humanities > Spanish and Portuguese > Course

Designing and evaluating empirical research studies in foreign language learning and teaching methodology. Bibliographical techniques and methods of reporting findings.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Romance Philology [SPAN-521]

BYU > College of Humanities > Spanish and Portuguese > Course

Comparative study of the evolution of Latin into modern Romance languages.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Romance Philology [PORT-521]

BYU > College of Humanities > Spanish and Portuguese > Course

Comparative study of evolution of Latin into modern romance languages.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Seminar in Brazilian Literature [PORT-659R]

BYU > College of Humanities > Spanish and Portuguese > Course

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Seminar in Portuguese Literature [PORT-649R]

BYU > College of Humanities > Spanish and Portuguese > Course

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Seminar in Spanish American Literature [SPAN-659R]

BYU > College of Humanities > Spanish and Portuguese > Course

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Seminar in Spanish Linguistics [SPAN-629R]

BYU > College of Humanities > Spanish and Portuguese > Course

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Seminar in Spanish Literature [SPAN-649R]

BYU > College of Humanities > Spanish and Portuguese > Course

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Seminar in Teaching Portuguese [PORT-679R]

BYU > College of Humanities > Spanish and Portuguese > Course

Topics vary. In-depth discussion about issues relating to language teaching and research.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Seminar in Teaching Spanish [SPAN-679R]

BYU > College of Humanities > Spanish and Portuguese > Course

Topics vary. In-depth discussion about issues relating to language teaching and research.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Spanish American Drama [SPAN-656R]

BYU > College of Humanities > Spanish and Portuguese > Course

Twentieth-century theatre from Spanish America and Brazil.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Span 451 or equivalent.

Spanish American Poetry [SPAN-655R]

BYU > College of Humanities > Spanish and Portuguese > Course

Selected Spanish American poets, movements, and national traditions.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Span 451 or equivalent.

Spanish Language Teaching Procedures [SPAN-577]

BYU > College of Humanities > Spanish and Portuguese > Course

Mastery of skills specific to foreign language instruction. Lectures, demonstrations, practical experience.

Hours: 3.0 Credit, 3.0 Lecture, 2.0 Lab
Prerequisites: For public school teachers.

Spanish Morphosyntax [SPAN-625]

BYU > College of Humanities > Spanish and Portuguese > Course

Linguistic study of morphological and syntactic structure of Spanish.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Spanish Phonetics and Phonology [SPAN-626]

BYU > College of Humanities > Spanish and Portuguese > Course

Systematic study of articulatory and acoustic Spanish phonetics and of structural and generative approaches to phonological description of Spanish.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Span 326 or instructor's consent.

Spanish-Speaking American (Mexican-American) Literature [SPAN-661]

BYU > College of Humanities > Spanish and Portuguese > Course

Spanish-English literature of Mexican-Americans within the United States.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Span 451 or instructor's consent.

Special Topics in Contemporary Literary Theory [SPAN-602R]

BYU > College of Humanities > Spanish and Portuguese > Course

Topics, figures, themes, and movements in contemporary theory as they relate to Hispanic literatures, cultures, and film.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Instructor's consent.

Special Topics in Portuguese Linguistics [PORT-529R]

BYU > College of Humanities > Spanish and Portuguese > Course

Topics from semantics to dialectology to sociolinguistics.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Special Topics in Spanish Linguistics [SPAN-529R]

BYU > College of Humanities > Spanish and Portuguese > Course

Topics include semantics, dialectology, and sociolinguistics.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Student Journal Production [SPAN-585]

BYU > College of Humanities > Spanish and Portuguese > Course

Production of the online student journal Entremundos of the Department of Spanish and Portuguese.

Hours: 1.0 Credit, 1.0 Lecture, 0.0 Lab

Teaching Hispanic Culture [SPAN-674]

BYU > College of Humanities > Spanish and Portuguese > Course

Methods of researching and teaching Hispanic culture.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Teaching Lusophone Cultures [PORT-674]

BYU > College of Humanities > Spanish and Portuguese > Course

Methods of researching and teaching Lusophone cultures.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Teaching Second Language Reading and Writing [SPAN-678]

BYU > College of Humanities > Spanish and Portuguese > Course

Research, theory, and techniques for teaching and assessing reading and writing skills in a foreign/second language classroom.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Teaching Second Language Speaking and Listening [SPAN-677]

BYU > College of Humanities > Spanish and Portuguese > Course

Research, theory, and techniques for teaching and assessing speaking and listening skills in a foreign/second language classroom.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

The Hispanic-American Short Story [SPAN-658R]

BYU > College of Humanities > Spanish and Portuguese > Course

Introduction and development of an important literary genre in Spanish America, including works of Jorge Luis Borges, Julio Cortazar, Juan Rulfo, Gabriel Garcia Marquez, and others.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Span 451 or equivalent.

The Spanish American Novel [SPAN-654R]

BYU > College of Humanities > Spanish and Portuguese > Course

Selected Spanish American novelists such as Juan Rulfo, Gabriel Garcia Marquez, Alejo Carpentier, Mario Vargas Llosa, etc.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Span 451 or equivalent.

Twentieth-Century Brazilian Literature [PORT-653]

BYU > College of Humanities > Spanish and Portuguese > Course

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Port 441, 451; or equivalents.

Twentieth-Century Spanish Literature [SPAN-648R]

BYU > College of Humanities > Spanish and Portuguese > Course

Genre (twentieth-century novel, drama, or poetry) or particular school (Generation of 1898, Generation of 1927, etc.)

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Span 441 or equivalent.

Alvord, Scott M

Associate Professor
Spanish and Portuguese
PhD, University of Minnesota, 2006
Research Interest: Hispanic Linguistics; Phonetics; Phonology; Sociolinguistics; Language Contact; Spanish in the U.S.

Bateman, Blair Earl

Associate Professor
Spanish and Portuguese
PhD, University of Minnesota, 2002
Research Interest: Teaching Culture; Language Teaching Methodology; Portuguese Pedagogy; Immersion Education

Child, Michael William

Assistant Professor
Spanish and Portuguese
PhD, University of Arizona, 2014
Research Interest: Second and Third Language Acquisition; Bilingualism; Language Contact; Portuguese Linguistics; Corpus Linguistics

Fails, Willis C

Associate Professor
Spanish and Portuguese
PhD, University of Texas, Austin, 1984
Research Interest: Experimental Phonetics; Spanish and Portuguese Linguistics

Garcia, Mara Lucy

Professor
Spanish and Portuguese
PhD, University of Kentucky, 1997
Research Interest: Latin American Literature; Contemporary Women Writers; Andean Writers; Fantastic Literature

Hague, Daryl Robert

Associate Professor
Spanish and Portuguese
PhD, State University of New York, Binghamton, 2002
Research Interest: Translation Theory and Pedagogy

Halling, Anna-Lisa

Assistant Professor
Spanish and Portuguese
PhD, Vanderbilt University, 2012
Research Interest: Early Modern Iberian Literature; Convent Theater; Women Writers; Feminist Theory; Spatial Theory

Hegstrom, Valerie

Associate Professor
Spanish and Portuguese
PhD, University of Kansas, 1992
Research Interest: Early Modern Spanish Literature; Spanish Theater Performance; Women Writers; Women's Studies

Knapp, Nieves Perez

Associate Teaching Professor
Spanish and Portuguese
PhD, University of Oviedo, Spain, 2003
Research Interest: Spanish Language and Cultures; Language Teaching Methodology; Materials Development

Krause, James Remington

Assistant Professor
Spanish and Portuguese
PhD, Vanderbilt University, 2010
Research Interest: Brazilian and Spanish American Narrative and Poetry; Comparative Latin American & Inter-American Literature; Translation Studies

Laraway, David Phillip

Associate Professor
Spanish and Portuguese
PhD, Cornell University, 1998
Research Interest: Spanish American Poetry, Philosophy, Basque Literature and Culture, Borges

Larson, Erik Matthew

Assistant Professor
Spanish and Portuguese
PhD, University of California, Davis, 2012
Research Interest: Latin American Literature; Contemporary Southern Cone Narrative; Detective Literature and Roman Noir; Post-Dictatorial Literature; Critical Theory

Lopez Alcala, Samuel

Assistant Professor
Spanish and Portuguese
PhD, Universidad Pontificia Comillas, Madrid, 2012
Research Interest: English into Spanish Translation and Interpreting

Martinsen, Rob Alan

Associate Professor
Spanish and Portuguese
PhD, University of Texas, Austin, 2007
Research Interest: Foreign or Second Language Acquisition/Teaching Methods; Teaching and Learning Languages through Study Abroad and Technology

Montgomery, Cherice Michelle

Assistant Professor
Spanish and Portuguese
PhD, Michigan State University, 2009
Research Interest: World Language Education, Pedagogy, and Curriculum Development; Transliteracy and Social Technologies; Professional Development; Arts-informed Education and Inquiry; Teacher Preparation

Nielson, Rex P

Associate Professor
Spanish and Portuguese
PhD, Brown University, 2010
Research Interest: 19th, 20th, and 21st Century Brazilian Narrative; Portuguese and Luso-African Literature; Comparative Literature; Masculinity Studies; Ecocriticism

Pratt, Dale J

Professor
Spanish and Portuguese
PhD, Cornell University, 1994
Research Interest: Nineteenth- and Twentieth-Century Spanish Literature; Realism; Generation of '98; Literature and Science; Theatre Performance; Comparative Literature; Science Fiction

Price, Brian Lee

Associate Professor
Spanish and Portuguese
PhD, University of Texas at Austin, 2007
Research Interest: Contemporary Mexican Literature and Culture; Music Studies; Mexican-American Literature

Rosenberg, John R

Professor
Spanish and Portuguese
PhD, Cornell University, 1985
Research Interest: Nineteenth- and Twentieth-Century Spanish Literature; Art and Literature

Sherman, Alvin F

Professor
Spanish and Portuguese
PhD, University of Virginia, 1990
Research Interest: Eighteenth- and Nineteenth-Century Spanish Literature; 21st Century Spanish Literature; Medieval Literature; Romanticism; Spanish Civil War

Smead, Robert N

Associate Professor
Spanish and Portuguese
PhD, University of Texas, Austin, 1988
Research Interest: Spanish-English Language Contact; Hispanic Bilingualism; Spanish Linguistics; Variationism

Stallings, Gregory Charles

Associate Professor
Spanish and Portuguese
PhD, University of California, Irvine, 1999
Research Interest: 20th and 21st Century Spanish Literature and Film

Thompson, Gregory L

Associate Professor
Spanish and Portuguese
PhD, University of Arizona, 2006
Research Interest: Second Language Acquisition; Code-Switching in the Foreign Language Classroom; Heritage Language Learners; Service-learning and Language Acquisition; Bilingualism and Languages in Contact; Placement Exams and Language Testing

Turley, Jeffrey Scott

Associate Professor
Spanish and Portuguese
PhD, University of California, Berkeley, 1992
Research Interest: Spanish Linguistics; Romance Philology; Semantics

Weatherford, Douglas J

Associate Professor
Spanish and Portuguese
PhD, Pennsylvania State University, 1997
Research Interest: Contemporary Spanish American Narrative; Colonial Literature; Historical Novel; Hispanic Film

Williams, Geoffrey Lynn

BYU > College of Humanities > Spanish and Portuguese > Faculty

Professor
Spanish and Portuguese
PhD, University of London, 1978
Research Interest: Spanish Linguistics; History of the Spanish Language; Spain as a Multilingual State; Medieval Literature; Seventeenth-Century Diplomatic History

Wilson, Mac John

BYU > College of Humanities > Spanish and Portuguese > Faculty

Assistant Professor
Spanish and Portuguese
PhD, Rutgers, 2015

Statistics

BYU > College of Physical and Mathematical Sciences > Department

Address

Statistics
223 TMCB
801-422-4506
graduate@stat.byu.edu

Programs

Statistics [695262]

Statistics is a scientific discipline by which statisticians assist other scientists and researchers in making informed decisions in the face of uncertainty. Statisticians use skills in a variety of areas to solve problems. The application of statistics is the embodiment of the scientific method.

The statistics MS degree prepares outstanding students for successful and productive careers, and to enroll in the best Ph.D. programs. A firm foundation in theoretical statistics is provided and the courses offer approaches to the solution of important real-world problems.

The Statistics Integrated BS/MS program allows well-prepared students to complete both degree programs in a shorter amount of time and at a lower tuition cost. Majors in all statistics emphases can apply for the integrated program after taking Math 112, Math 113, Math 213 and Math 215, Math 314, Stat 230, Stat 240, Stat 330 and Stat 340 and completing University Core requirements.

Roughly 14 students are accepted into the statistic's masters program each Fall. Students are expected to complete the master's program in two years.

Chair: Scott D. Grimshaw
Graduate Coordinator: David B. Dahl

Resources & Opportunity

Center for Collaborative Research and Statistical Consultation. The Center operates with full access to all departmental resources to provide statistical expertise to faculty, graduate students, and off-campus researchers in other disciplines. Areas of particular strength are designing experiments, sample surveys, and analyzing the resulting data. Problems are solved by application and adaptation of state-of-the-art methodology and development of new methodology as required.

Computing Facilities. The Department of Statistics provides computing to support research with a cluster of nine servers. Two of the servers are large memory models (512 GB RAM). All of the servers have at least 32 CPU's, our have 56 CPU's. Computer support consists of one full-time employee and his staff of student assistants.

Department Research. Faculty members in the Department of Statistics carry out a rich variety of research programs. Research emphases include Bayesian methods, environmental and spatial statistics, reliability of industrial and computing processes, statistical genetics and bioinformatics, mixed models and longitudinal data, data mining, chemometrics, actuarial methods, design and analysis of experiments, and issues in statistical computation. In addition to these general areas, more specific research interests for individual faculty are listed in the faculty section immediately following the course descriptions.

For more information, please visit their website at http://statistics.byu.edu.

Financial Assistance

The department has limited funds to supplement students' financial resources, and such funds are only available within departmental and university guidelines. All admitted students receive teaching or research assistantships. Some tuition support is available, and is awarded on a competitive basis.

Statistics (MS) [695262]

Requirements for Degree

> **Credit hours: Thesis option (33): minimum 27 course work plus 6 thesis hours (Stat 699R). Project option (33): minimum 30 course work plus 3 project hours (Stat 698R).**
> **Required courses: Stat 535, 536, 537, 624, 637, 641, 642, 651, and 666.**
> **Minor (optional): any approved minor.**
> **Thesis or project.**
> **Examinations: (A) comprehensive written examination covering Stat 535, 624, 641, and 642, (B) oral defense of project or thesis.**
> **C+ or better in each class, with an overall cumulative 3.0 GPA in MS degree classes.**

Required Tests

GRE and TOEFL, or IELTS

Additional Requirements

Applicants must have the a bachelor's degree from an accredited US university or the foreign degree equivalent, with a minimum 3.30 undergraduate GPA. We also require two methods courses beyond introductory statistics (at BYU these courses are Stat 230 (ANOVA) and Stat 330 (Regression)), two courses in calculus-based statistical theory (Stat 240 and Stat 340 at BYU), differential calculus (Math 112 at BYU), integral calculus (Math 113 at BYU), multivariate calculus (Math 314 at BYU), and a course in linear algebra (Math 213 and Math 215 at BYU). Beyond the listed courses in Math and Statistics, other courses may be considered in your application.

Applicants with Foreign Credentials

Applicants with degrees that have been awarded outside of the US must complete a foreign credential evaluation with IERF and request to have the official evaluation report sent electronically to BYU Graduate Studies (before the applicable program application deadline) in order to be considered eligible for admission. Please be aware that the IERF process can take up to a month to complete. Plan accordingly to meet the February 1st application deadline.

(Stat-Chem-C S-Geol-Math-MthEd-Phscs) Business Career Essentials in Science and Math [STAT-500]

> **Introduction for science, math, and statistics majors to careers in industry. Project planning, oral and written business presentations, business accounting, and technology readiness.**
>
> **Hours: 1.5 Credit, 1.5 Lecture, 0.0 Lab**

Academic Internship: Statistics [STAT-599R]

BYU > College of Physical and Mathematical Sciences > Statistics > Course

On-the-job experience. Report required.

Hours: 1.0-9.0 Credit, 0.0 Lecture, 0.0 Lab
Prerequisites: Departmental consent.

Advanced Experimental Design [STAT-631]

BYU > College of Physical and Mathematical Sciences > Statistics > Course

Response surface methods, mixture designs, and optimal designs; fractions of two-level, three-level, and mixed-level factorials; analysis of experiments with complex aliasing; robust parameter designs.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Bayesian Methods [STAT-651]

BYU > College of Physical and Mathematical Sciences > Statistics > Course

Basic Bayesian inference; conjugate and nonconjugate analyses; Markov Chain Monte Carlo methods; hierarchical modeling; convergence diagnostics.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Experimental Design [STAT-531]

BYU > College of Physical and Mathematical Sciences > Statistics > Course

Basic designs, power and sample size, Latin squares, incomplete blocks, change-over designs, factorials, fractional factorials, confounding, split-plots, response surface designs.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Generalized Linear Models [STAT-637]

BYU > College of Physical and Mathematical Sciences > Statistics > Course

Generalized linear models framework, binary data, polytomous data, log-linear models.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Graduate Seminar in Statistics [STAT-591R]

BYU > College of Physical and Mathematical Sciences > Statistics > Course

Hours: 0.0 Credit, 1.0 Lecture, 0.0 Lab

Linear Models [STAT-535]

BYU > College of Physical and Mathematical Sciences > Statistics > Course

Theory of the Gaussian Linear Model with applications to illustrate and complement the theory; random vectors, multivariate normal, central and non-central chi-squared, t, F distributions; distribution of quadratic forms; Gauss-Markov Theorem; distribution theory of estimates and standard tests in multiple regression and ANOVA models; regression diagnostics; parameterizations and estimability; model selection and its consequences.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Master's Project [STAT-698R]

BYU > College of Physical and Mathematical Sciences > Statistics > Course

Hours: 1.0-3.0 Credit, 0.0 Lecture, 0.0 Lab
Prerequisites: Departmental consent.

Master's Thesis [STAT-699R]

BYU > College of Physical and Mathematical Sciences > Statistics > Course

Hours: 1.0-6.0 Credit, ARR Lecture, ARR Lab
Prerequisites: Departmental consent.

Mixed Model Methods [STAT-537]

BYU > College of Physical and Mathematical Sciences > Statistics > Course

Fixed effects, random effects, repeated measures, nonindependent data, general covariance structures, estimation methods.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Multivariate Statistical Methods [STAT-666]

BYU > College of Physical and Mathematical Sciences > Statistics > Course

Inference about mean vectors and covariance matrices; multivariate analysis of variance and regression; canonical correlation; discriminant, cluster, principal component, and factor analysis.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Probability Theory and Mathematical Statistics 1 [STAT-641]

BYU > College of Physical and Mathematical Sciences > Statistics > Course

Axioms of probability; combinatorics; random variables, densities and distributions; expectation; independence; joint distributions; conditional probability; inequalities; derived random variables; generating functions; limit theorems; convergence results.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Departmental consent.

Probability Theory and Mathematical Statistics 2 [STAT-642]

BYU > College of Physical and Mathematical Sciences > Statistics > Course

Introduction to statistical theory; principles of sufficiency and likelihood; point and interval estimation; maximum likelihood; Bayesian inference; hypothesis testing; Neyman-Pearson lemma; likelihood ratio tests; asymptotic results, including delta method; exponential family.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Special Topics in Statistics [STAT-595R]

BYU > College of Physical and Mathematical Sciences > Statistics > Course

Hours: 1.0-3.0 Credit, ARR Lecture, 0.0 Lab
Prerequisites: Instructor's consent.

Statistical Computation [STAT-624]

BYU > College of Physical and Mathematical Sciences > Statistics > Course

Fundamental numerical methods used by statisticians; programming concepts; efficient use of software available for statisticians; simulation studies.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Departmental consent.

Statistical Consulting [STAT-590R]

BYU > College of Physical and Mathematical Sciences > Statistics > Course

Introduction to statistical consulting, oral presentations, presentation packages, written reports. Extensive applied experience in the Center for Collaborative Research and Statistical Consulting.

Hours: 1.0-3.0 Credit, Arr Lecture, 0.0 Lab
Prerequisites: Departmental consent.

Statistical Learning and Data Mining [STAT-536]

BYU > College of Physical and Mathematical Sciences > Statistics > Course

Weighted least squares, robust regression, regularization, dimension reduction, nonlinear regression, local regression, generalized additive models, Gaussian process regression, tree-structured regression, support vector machines, classification.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Statistical Methods for Research 1 [STAT-511]

BYU > College of Physical and Mathematical Sciences > Statistics > Course

Basic statistical methodologies and experimental design. Topics include simple analysis of variance, multiple regression, analysis of covariance, model selection.

Hours: 3.0 Credit, 3.0 Lecture, 2.0 Lab
Prerequisites: or equivalent.

Statistical Methods for Research 2 [STAT-512]

BYU > College of Physical and Mathematical Sciences > Statistics > Course

Advanced statistical methodologies and experimental design. Topics include multi-way analysis of variance, mixed models analysis of variance, logistic regression, log-linear models, time series models, principal components, canonical correlation, common experimental designs.

Hours: 3.0 Credit, 3.0 Lecture, 2.0 Lab

Survival Analysis [STAT-538]

BYU > College of Physical and Mathematical Sciences > Statistics > Course

Basic concepts of survival analysis; hazard functions; types of censoring; Kaplan-Meier estimates; Logrank tests; proportional hazard models; examples drawn from clinical and epidemiological literature.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Berrett, Candace

Associate Professor
Statistics
PhD, The Ohio State University, 2010
Research Interest: Spatial and Space-time Statistics; Bayesian Modeling, Applications to the Environmental Sciences

Blades, Natalie Jean

Associate Professor
Statistics
PhD, Johns Hopkins University, 2003
Research Interest: Infectious Disease Epidemiology; Ordinal Data Models

Christensen, William F

Professor
Statistics
Fellow of the American Statistical Association - PhD, Iowa State University, 1999
Research Interest: Environmental and Spatial Statistics; Pollution Source Apportionment; Climate and Paleoclimate

Dahl, David B

Professor
Statistics
PhD, University of Wisconsin - Madison, 2004
Research Interest: Bayesian Nonparametrics: Model-Based Clustering; Random Partition Models; Protein Structure Prediction, Bioinformatics; and Statistical Computing

Eggett, Dennis Lee

Research Associate Professor
Statistics
PhD, North Carolina State University, 1987
Research Interest: Linear Models; Experimental Design; Statistical Computing

Fellingham, Gilbert W

Professor
Statistics
PhD, University of Washington, 1990
Research Interest: Bayesian Nonparametrics; Bayesian Hierarchical Models; Applications in Sports, Human Performance, and Health

Grimshaw, Scott D

Professor
Statistics
PhD, Texas A&M University, 1989
Research Interest: Audience Measurements and Analytics; Control Charts, Data Mining; Statistical Computing; Application in Sports

Hartman, Brian Matthew

Assistant Professor
Statistics
Associate Society of Actuaries; PhD, Texas A&M University, 2012
Research Interest: Bayesian methods and their applications in actuarial science and risk

Heaton, Matthew J

Assistant Professor
Statistics
PhD, Duke University, 2011
Research Interest: Spatio-temporal Statistics; Environmental Impacts; Uncertainty Quantification; Statistics in Epidemiology; Bayesian Modeling

Lawson, John S

Professor
Statistics
PhD, Polytechnic Institute of New York, 1984
Research Interest: Design and Analysis of Experiments; Statistical Process Control; Acceptance Sampling; Reliability Engineering; Record Linkage

Page, Garritt L

Assistant Professor
Statistics
PhD, Iowa State University, 2009
Research Interest: (Non) Parametric Bayesian Methods; Hierarchical Modeling; Random Partition Models; Functional Data; Spatial Statistics; Statistics in Sports; Statistics in Education

Reese, Christopher Shane

Professor
Statistics
Fellow of the American Statistical Association; PhD, Texas A&M University, 1999
Research Interest: Bayesian Hierarchical Models; Bayesian Optimal Experimental Design; Sports Statistics; Reliability; Computer Experiments; Applications of Statistics to National Security Issues; Environmental Statistics; Industrial Statistics

Richardson, Robert Alan

Assistant Professor
Statistics
Associate Society of Actuaries; PhD, University of California Santa Cruz, 2015
Research Interest: Spatio-Temporal Data Analysis; Bayesian Non-Parametrics; Stochastic Differential Equations; Actuarial and Financial Models

Scott, Del T

Professor
Statistics
PhD, Pennsylvania State University, 1977
Research Interest: Statistical Computing; Categorical Data Analysis; Linear Models; Graphical Analysis

Tass, Eleanor Shannon Neeley

Associate Professor
Statistics
PhD, Rice University, 2009
Research Interest: Statistical Models for Analyzing Data In Planetary, Geology, Neuropsychology, and Brain Imaging; Microarrays; Climate Modeling; Oncology; Foreign Aid Allocation

Tolley, Harold Dennis

Professor
Statistics
Fellow of the American Statistical Association; Associate Society of Actuaries, 1981; PhD, University of North Carolina, 1974
Research Interest: Actuarial Methods in Health, Statistical Methods in Analytic Chemistry; Nonlinear Stochastic Differential Equations

Warr, Richard Lyman

Assistant Professor
Statistics
PhD, University of New Mexico, 2010
Research Interest: Stochastic Process; Survival and Reliability Analysis; Nonparametric Bayesian Methods; Statistical Computing

Teacher Education

Address

Teacher Education
205 MCKB
801-422-2089
tedgradsec@byu.edu

Programs

Teacher Education [356062]

The Department of Teacher Education offers one graduate program, a Master of Arts (MA) in Teacher Education. The aim of the Master of Arts (MA) program in Teacher Education is to provide a rigorous program focused on inquiry that prepares candidates to improve their practice as teachers, become teacher leaders in schools, districts, and other educational settings, and prepare for doctoral studies or other advanced scholarship.

Chair: Kendra Hall-Kenyon Graduate Coordinator: Ramona CutriInterim Coordinator: Michael Richardson Winter 2018

Resources & Opportunity

Computer laboratories on campus provide students with internet access and assistance with electronic thesis submission. Mac and Windows computers in the laboratories also provide graduate students with a variety of computer software packages. All computers have access to myBYU and Learning Suite which provide services such as e-mail and class discussion groups.

Graduate student office space is available for graduate students who are working with faculty on research, evaluation, and development projects.

Financial Assistance

Financial assistance for tuition, books, travel or other expenses is granted to graduate students in the Department of Teacher Education as university funding permits. A limited number of research assistantships may also be funded through faculty research grants.

Teacher Education (MA) [356062]

BYU > David O. McKay School of Education > Teacher Education > Program

The master's program is a two-year, evening and summer-intensive program for the working professional. Students move through their course work as a cohort and complete course work on the BYU campus.

The curriculum is both theory and practice based. The teacher education core provides teachers with an understanding of the theories and practices related to their professional assignment and space for considering their role as educators. The research core includes courses in research methods, statistics, qualitative data analysis, and culminates in a thesis.

Requirements for Degree

Credit hours: 33: 27 hours plus 6 hours of thesis (T Ed 699R)
Core: T Ed 610, 611, 612, 613
Required research courses: T Ed 691, 692, 693
Electives: T Ed 603, 604, 620, 621, 622, 623, 624, 625, 640, 642, 643, 644, 653R, 654R, 660, 661, 663R, 665, 680, 681, 682, 683, 685 or approved graduate level courses in other departments.
Thesis: T Ed 699R
Examinations: oral defense of course work and oral defense of thesis (consult department for details)

Required Tests

GRE

Additional Requirements

1. 3.25 total GPA
2. One year teaching experience as a licensed teacher (preferred)
3. Departmental Letter of Intent (see department website for details)
4. Resume required

Please note: International applicants are not eligible for this program.

Action Research Project [T ED-698R]

BYU > David O. McKay School of Education > Teacher Education > Course

Developing, observing, gathering, interpreting, and reporting data from action research project. Two project credit hours must be taken during semester of project defense.

Hours: 1.0-6.0 Credit, ARR Lecture, 0.0 Lab

Advanced STEM Education Curriculum and Development [T ED-683]

BYU > David O. McKay School of Education > Teacher Education > Course

Strategies for teaching a variety of topics. Developing and implementing integrated STEM curricula.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Acceptance into MA in teacher education program or instructor's consent.

Advanced STEM Education Pedagogy [T ED-682]

BYU > David O. McKay School of Education > Teacher Education > Course

Inquiry-based pedagogies characteristic of STEM education applying contemporary theories of teaching and learning. Integrating STEM disciplines through a variety of instructional strategies and models.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Acceptance into MA in teacher education program or instructor's consent.

Advocacy in Physical Education Teacher Education [T ED-644]

BYU > David O. McKay School of Education > Teacher Education > Course

History, concepts, issues, current trends, and professional practices associated with becoming an effective advocate for physical education at local, regional, and national levels.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Acceptance into the T Ed MA program.

Best Practices in Teacher Education [T ED-665]

BYU > David O. McKay School of Education > Teacher Education > Course

Teacher education curriculum; theories and research that support current practice; improving that practice.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Membership in teacher education cohort or instructor's consent.

Classroom as Culture and Knowledge System [T ED-661]

BYU > David O. McKay School of Education > Teacher Education > Course

Classrooms as culture and knowledge systems and how those systems are created and sustained over time.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Membership in teacher education cohort or instructor's consent.

Content-Area Literacy Instruction [T ED-603]

BYU > David O. McKay School of Education > Teacher Education > Course

Content-area instructional strategies attuned to vocabulary, concept development demands, nature of content-area texts. Issues of negotiating and creating texts in content-area disciplines.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Membership in teacher education cohort or instructor's consent.

Curriculum and Instructional Theory and Design in Physical Education [T ED-642]

BYU > David O. McKay School of Education > Teacher Education > Course

Theories, concepts, and practices associated with design and delivery of physical education in the public schools and in physical education teacher education.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Acceptance into the T Ed MA program.

Curriculum Theory, Design, and Assessment [T ED-613]

BYU > David O. McKay School of Education > Teacher Education > Course

The nature of curriculum design for potentially educative environments.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Acceptance in MA in Teacher Education program or instructor's consent.

Directed Individual Study [EL ED-693R]

BYU > David O. McKay School of Education > Teacher Education > Course

Hours: 0.5-4.0 Credit, ARR Lecture, ARR Lab

Education for Democracy [T ED-604]

BYU > David O. McKay School of Education > Teacher Education > Course

The public purposes of education, including preparing students for active participation in a democracy.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Membership in teacher education cohort or instructor's consent.

Foundations in Physical Education Teacher Education Research [T ED-640]

BYU > David O. McKay School of Education > Teacher Education > Course

Theory and application of roles of teacher education in research, teaching, and clinical evaluation.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Acceptance into the T Ed MA program.

Foundations of Literacy [T ED-620]

BYU > David O. McKay School of Education > Teacher Education > Course

Historical and theoretical perspective of literacy-related issues and challenges. Implications for making well-informed decisions that benefit all students.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Membership in teacher education cohort or instructor's consent.

Foundations of Teacher Education [T ED-610]

BYU > David O. McKay School of Education > Teacher Education > Course

Issues and contending viewpoints about issues currently shaping the discourse about teaching and teacher education in America.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Acceptance in MA in Teacher Education program or instructor's consent.

Historical Foundations of STEM Education [T ED-680]

BYU > David O. McKay School of Education > Teacher Education > Course

Historical and philosophical foundations of the STEM education disciplines, including socio-cultural, economic, and political influences.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Acceptance into MA in teacher education program or instructor's consent.

History of Teaching and Teacher Education [T ED-660]

BYU > David O. McKay School of Education > Teacher Education > Course

History of teaching as a cross-generational social and cultural activity; teacher education as a professional practice with present-day educational implications.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Membership in teacher education cohort or instructor's consent.

Introduction to Educational Research [T ED-691]

BYU > David O. McKay School of Education > Teacher Education > Course

Exploring the processes of educational research. Provides a survey of educational research methodologies.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Acceptance in MA in Teacher Education program or instructor's consent.

Issues and Trends in Early Childhood Education [T ED-654R]

BYU > David O. McKay School of Education > Teacher Education > Course

Contemporary trends and issues within and across educational disciplines. Focus of the course selected in consideration of student interests and needs, and contribution to program learning outcomes.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Acceptance in MA in Teacher Education program or instructor's consent.

Issues and Trends in Education [T ED-654R]

BYU > David O. McKay School of Education > Teacher Education > Course

Contemporary trends and issues within and across educational disciplines. Focus of the course selected in consideration of student interests and needs, and contribution to program learning outcomes.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Acceptance in MA in Teacher Education program or instructor's consent.

Issues and Trends in Mathematical Education [T ED-654R]

BYU > David O. McKay School of Education > Teacher Education > Course

Contemporary trends and issues within and across educational disciplines. Focus of the course selected in consideration of student interests and needs, and contribution to program learning outcomes.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Acceptance in MA in Teacher Education program or instructor's consent.

Issues and Trends in Physical Education Teacher Education (PETE) [T ED-654R]

BYU > David O. McKay School of Education > Teacher Education > Course

Contemporary trends and issues within and across educational disciplines. Focus of the course selected in consideration of student interests and needs, and contribution to program learning outcomes.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Acceptance in MA in Teacher Education program or instructor's consent.

Learning and Teaching in Early Childhood Education [T ED-653R]

BYU > David O. McKay School of Education > Teacher Education > Course

Learning and teaching within or across disciplines. Focus of the course selected in consideration of student interests and needs, and contribution to program learning outcomes.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Acceptance in MA in Teacher Education program or instructor's consent.

Learning and Teaching in English Language Learners (ELLs) [T ED-653R]

BYU > David O. McKay School of Education > Teacher Education > Course

Learning and teaching within or across disciplines. Focus of the course selected in consideration of student interests and needs, and contribution to program learning outcomes.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Acceptance in MA in Teacher Education program or instructor's consent.

Learning and Teaching in Mathematics Education [T ED-653R]

BYU > David O. McKay School of Education > Teacher Education > Course

Learning and teaching within or across disciplines. Focus of the course selected in consideration of student interests and needs, and contribution to program learning outcomes.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Acceptance in MA in Teacher Education program or instructor's consent.

Learning and Teaching in the Disciplines [T ED-653R]

BYU > David O. McKay School of Education > Teacher Education > Course

Learning and teaching within or across disciplines. Focus of the course selected in consideration of student interests and needs, and contribution to program learning outcomes.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Acceptance in MA in Teacher Education program or instructor's consent.

Learning and Teaching: Cultural Responsive Teaching [T ED-653R]

BYU > David O. McKay School of Education > Teacher Education > Course

Learning and teaching within or across disciplines. Focus of the course selected in consideration of student interests and needs, and contribution to program learning outcomes.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Acceptance in MA in Teacher Education program or instructor's consent.

Literacy Assessments and Interventions [T ED-625]

BYU > David O. McKay School of Education > Teacher Education > Course

Formal and informal assessment procedures. Appropriate instructional interventions for students of varying ages, performance levels, and linguistic abilities, particularly struggling students.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Membership in teacher education cohort or instructor's consent.

Literacy Development and Instruction [T ED-622]

BYU > David O. McKay School of Education > Teacher Education > Course

Emergent, early, and adolescent literacy development; ideas for constructing appropriate literacy learning environments, experiences, and instructional interventions for students pre-K-12.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Membership in teacher education cohort or instructor's consent.

Literature for Young People [T ED-621]

BYU > David O. McKay School of Education > Teacher Education > Course

Overview of fiction and nonfiction literature for elementary and secondary school students (K-12); authors, current trends, and cross-curriculum classroom applications.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Membership in teacher education cohort or instructor's consent.

Master's Thesis [T ED-699R]

BYU > David O. McKay School of Education > Teacher Education > Course

Formal report/defense of substantive research, evaluation, or curriculum project that makes original contribution to field. Thesis credit hours distributed and accompanied by seminars.

Hours: 0.5-2.0 Credit, ARR Lecture, 0.0 Lab

Physical Education for Special Populations [T ED-643]

BYU > David O. McKay School of Education > Teacher Education > Course

Theoretical and practical aspects of teaching individuals with disabilities in the physical education setting.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Acceptance into the T Ed MA program.

Qualitative Data Analysis [T ED-693]

BYU > David O. McKay School of Education > Teacher Education > Course

Introduction to methods of qualitative inquiry for teachers studying their own and others' practice or other issues in education.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: T Ed 691 or approved equivalent; acceptance in MA in Teacher Education program or instructor's consent.

Quantitative Data Analysis [T ED-692]

BYU > David O. McKay School of Education > Teacher Education > Course

Quantitative data analysis preparing students to design, conduct, and interpret statistical analyses in educational research.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: T Ed 691 or approved equivalent; acceptance in MA in Teacher Education program or instructor's consent

Reading Comprehension Instruction [T ED-623]

BYU > David O. McKay School of Education > Teacher Education > Course

Current theories and models of reading comprehension. Implications for comprehension instruction considering cultural, linguistic, and cognitive differences; curriculum; curriculum integration; motivational strategies.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Membership in teacher education cohort or instructor's consent.

Research and Assessment in STEM Education [T ED-685]

BYU > David O. McKay School of Education > Teacher Education > Course

Contemporary modes of assessment and evaluation in STEM education and research. Complementing and extending traditional modes of assessment and evaluating quality, analyzing trends, and drawing conclusions regarding the effects of STEM education on student learning.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Acceptance into MA in teacher education program or instructor's consent.

Seminar in Equity, Power, and Privilege [T ED-663R]

BYU > David O. McKay School of Education > Teacher Education > Course

Exploration of special topics related to teacher education. Topics selected in consideration of student interests and needs, and contribution to program learning outcomes.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Acceptance in MA in Teacher Education program or instructor's consent.

Seminar in Multiple Literacies and Semiotics [T ED-663R]

BYU > David O. McKay School of Education > Teacher Education > Course

Exploration of special topics related to teacher education. Topics selected in consideration of student interests and needs, and contribution to program learning outcomes.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Acceptance in MA in Teacher Education program or instructor's consent.

Seminar in Physical Education Teacher Education (PETE) [T ED-663R]

BYU > David O. McKay School of Education > Teacher Education > Course

Exploration of special topics related to teacher education. Topics selected in consideration of student interests and needs, and contribution to program learning outcomes.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Acceptance in MA in Teacher Education program or instructor's consent.

Seminar in Second Language Acquisition [T ED-663R]

BYU > David O. McKay School of Education > Teacher Education > Course

Exploration of special topics related to teacher education. Topics selected in consideration of student interests and needs, and contribution to program learning outcomes.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Acceptance in MA in Teacher Education program or instructor's consent.

Seminar in STEM [T ED-663R]

BYU > David O. McKay School of Education > Teacher Education > Course

Exploration of special topics related to teacher education. Topics selected in consideration of student interests and needs, and contribution to program learning outcomes.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Acceptance in MA in Teacher Education program or instructor's consent.

Seminar in Teacher Education [T ED-663R]

BYU > David O. McKay School of Education > Teacher Education > Course

Exploration of special topics related to teacher education. Topics selected in consideration of student interests and needs, and contribution to program learning outcomes.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Acceptance in MA in Teacher Education program or instructor's consent.

Teacher Learning, Development, and Mentoring [T ED-612]

BYU > David O. McKay School of Education > Teacher Education > Course

The nature of curriculum design for potentially educative environments.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Acceptance in MA in Teacher Education program or instructor's consent.

The Nature of STEM Discourse and Participation [T ED-681]

BYU > David O. McKay School of Education > Teacher Education > Course

The nature of various STEM disciplines; how individuals learn, know, communicate, and participate within and between STEM disciplines given contemporary theories of learning and teaching.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Acceptance into MA in teacher education program or instructor's consent.

Theories of Learning and Teaching [T ED-611]

BYU > David O. McKay School of Education > Teacher Education > Course

Seminal theories of learning in relationship to the practice of teaching and schooling.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Acceptance in MA in Teacher Education program or instructor's consent.

Writing Instruction [T ED-624]

BYU > David O. McKay School of Education > Teacher Education > Course

Writing development, including spelling, handwriting, and vocabulary. Instructional practices for teaching the writing process, integrating reading, listening, speaking, and assessment.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Membership in teacher education cohort or instructor's consent.

Bahr, Damon L

BYU > David O. McKay School of Education > Teacher Education > Faculty

Associate Professor
Teacher Education
EdD, Brigham Young University, 1988
Research Interest: Mathematics Education, Curriculum and Instruction, Assessment

Barney, David C

BYU > David O. McKay School of Education > Teacher Education > Faculty

Associate Professor
Teacher Education
EdD, Florida State University, 2002
Research Interest: Physical Education Teacher Education

Black, Alaska Heather

BYU > David O. McKay School of Education > Teacher Education > Faculty

Assistant Professor
Teacher Education
PhD, Pennsylvania State University, 2015
Research Interest: Language, Culture, and Society

Bybee, John Eric

BYU > David O. McKay School of Education > Teacher Education > Faculty

Assistant Professor
Teacher Education
PhD, University of Texas, Austin, 2015
Research Interest: Cultural Studies in Education

Clark, Sarah Anne

BYU > David O. McKay School of Education > Teacher Education > Faculty

Associate Professor
Teacher Education
PhD, Utah State University, 2009
Research Interest: Literacy Education

Cutri, Ramona Maile

BYU > David O. McKay School of Education > Teacher Education > Faculty

Associate Professor
Teacher Education
PhD, University of California, Los Angeles, 1997
Research Interest: Multicultural Education, Teacher Education

Draper, Roni Jo

Professor
Teacher Education
PhD, University of Nevada, Reno, 2000
Research Interest: Literary Education, Teacher Education, Research Design

Erickson, Lynnette Bloom

Associate Professor
Teacher Education
PhD, Arizona State University, 1996
Research Interest: Social Studies Education, Teacher Education

Feinauer, Erika

Associate Professor
Teacher Education
EdD, Harvard University, 2006
Research Interest: Literacy Education

Freire, Juan Andres

Assistant Professor
Teacher Education
PhD, University of Utah, 2014
Research Interest: Bilingual and Multicultural Education

Hall-Kenyon, Kendra Maria

Professor
Teacher Education
PhD, Columbia University, 2002
Research Interest: Early Childhood Education, Literacy Education, Teacher Education

Jensen, Bryant Troy

Assistant Professor
Teacher Education
PhD, Arizona State University, 2009
Research Interest: Multicultural Education

Leavitt, Teresa Anne

Associate Teaching Professor
Teacher Education
PhD, University of Nevada, Las Vegas, 2008
Research Interest: Teacher Education

Morrison, Timothy G

Associate Professor
Teacher Education
PhD, University of Illinois, 1986
Research Interest: Literacy Education, Teacher Education

Newberry, Melissa Ann

Associate Professor
Teacher Education
PhD, The Ohio State University, 2008
Research Interest: Adolescent Development

Nixon, Ryan Stephen

Assistant Professor
Teacher Education
PhD, University of Georgia, 2015
Research Interest: Science Education, Teacher Education

Pennington, Todd Robert

Associate Professor
Teacher Education
PhD, Virginia Tech, 1998
Research Interest: Curriculum and Instruction - Sport Pedagogy

Peterken, Corinna Eva

Assistant Professor
Teacher Education
PhD, Monash University, 2016
Research Interest: Early Childhood Education

Pinnegar, Stefinee Esplin

Associate Professor
Teacher Education
PhD, University of Arizona, 1989
Research Interest: Teacher Education, TESOL

Prusak, Keven A

Associate Professor
Teacher Education
PhD, Arizona State University, 2000
Research Interest: Physical Education Teacher Education

Richardson, Michael John

Associate Professor
Teacher Education
PhD, Brigham Young University, 2009
Research Interest: Adolescent Development

Rosborough, Alessandro Antonio

Associate Professor
Teacher Education
PhD, University of Nevada, Las Vegas, 2010
Research Interest: Multicultural Education, TESOL

Smith, Leigh Knight

Associate Professor
Teacher Education
PhD, University of Utah, 2002
Research Interest: Science Education, Teacher Education

Whiting, Erin Feinauer

Associate Professor
Teacher Education
PhD, University of Missouri-Columbia, 2006
Research Interest: Multicultural Education; Inequality; Home, Family and Community Connections to Schools; Community Studies

Wilkinson, Carol

Associate Professor
Teacher Education
EdD, Brigham Young University, 1983
Research Interest: Physical Education Teacher Education

Wimmer, Jennifer J

Associate Professor
Teacher Education
PhD, University of Nevada, Las Vegas, 2010
Research Interest: Content Area Literacy, Literacy Education, Teacher Education

Young, Terrell Alan

Professor
Teacher Education
PhD, Brigham Young University, 1988
Research Interest: Curriculum and Instructional Science, Reading/Language Arts

Technology

Address

Technology
265 CTB
801-422-6300
sotadmin@byu.edu

Programs

Technology [396560]

The Master of Science in technology degree is designed to develop leaders to respond to the needs of a technology-based society for advanced technical, managerial, and educational personnel. Graduate level leadership and technology application capabilities are developed through rigorous courses and in-depth research and development experiences. The MS in technology provides opportunities for students to engage in applied technical research that adds to the knowledge of relevant practice or solves problems that arise in the workplace.

One degree is offered through the School of Technology: Technology-MS.

Chair: Barry M. LuntGraduate Coordinator: Clifton B. Farnsworth

Resources & Opportunity

Nationally recognized instructional laboratories are available to provide students with the most current concepts, curriculum, software, equipment, and laboratory instructional/ physical organization.

Financial Assistance

The School of Technology offers a limited number of scholarships. Application for financial aid is made through the program's graduate coordinator.

Technology (MS) [396560]

The School of Technology, an academic unit in the College of Engineering and Technology, provides a Master of Science degree with specialization in Construction Management, Information Technology, Manufacturing Systems, or Technology and Engineering Education. Twenty-five faculty professionals having diverse educational and experiential backgrounds provide strong research expertise and student mentoring. The faculty members are well-published, belong to professional societies, and are involved in developing and commercializing recognized software and hardware products used throughout the world.

We recommend applying for admittance during Fall or Winter semesters, due to limited course offerings during Spring and Summer terms. If you would like to be admitted during a Spring or Summer term, please speak with an advisor before applying.

Requirements for Degree.
The technology MS degree must be completed within three years.

Credit hours: 24 minimum approved course hours plus 6 thesis hours (Tech 699R).
Required courses: Tech 638, 699R.
Specialization: minimum 21 hours from approved courses in the area of study. An approved study list is required.
Examination: Oral defense of thesis.

Construction Management
Advisor: **Clifton Farnsworth**
The master's degree offered by Brigham Young University's School of Technology, with an emphasis in construction management, is designed for students who are interested in deepening and broadening their knowledge of construction management beyond their undergraduate CM degree through a rigorous graduate program that includes research at the forefront of the discipline. The MS degree provides excellent preparation for professional practice and a solid foundation for those interested in continuing their graduate studies. Applicants are encouraged to become familiar with the research interests of graduate faculty members in construction management. Students enrolling in the CM master's program immediately following their undergraduate studies are strongly encouraged to fulfill a professional work experience (or internship) within the industry prior to entering the graduate program. Students are also encouraged to fulfill an internship as part of their graduate experience.

> **Required courses: CFM 555, CFM 600, CFM 630, CFM 640, CFM 650.**
> **Approved electives: 6 credit hours.**

Information Technology
Advisor: **Amanda Hughes**
Those qualifying for this specialization prepare for information technology (IT) leadership positions in an organization of their choice. The curriculum addresses the many applications and developments of IT, focusing on those in science, engineering, and technology. The MS degree is awarded to students who have mastered a professional level of education in core and related areas of information technologies.

> **A minimum of 21 graduate hours approved by your committee, including at least 12 hours from the IT emphasis courses (IT&C 500 or IT&C 600 level).**

Manufacturing Systems
Advisor: **Yuri Hovanski**
Students who have graduated in manufacturing engineering technology or related technical areas will find that this specialization is an opportunity to prepare for a career in a rapidly growing field. Increased international focus on productivity, quality, and automation has thrust the most advanced concepts of technology and management directly into the manufacturing arena. The critical need for integrating and applying these concepts into manufacturing systems is central to this specialization.

> **A minimum of 21 graduate hours approved by your committee, including at least 18 hours from the MS emphasis courses (MFGEN 500 or MFGEN 600 level courses).**

Technology and Engineering Education
Advisor: **Geoffrey Wright**
The technology and engineering education specialization helps students who have graduated in technology and/or engineering teacher education or related areas to be more effective leaders. The opportunity will be theirs to achieve knowledge and skills for leadership in teaching, supervising, and managing in schools or industry. Through a research-oriented thesis, students will develop writing and research abilities related to technology and engineering education.

> **Required courses: Stat 511, TEE 610, 625, 675.**
> **Approved electives: 11 hours, based upon committee approval.**

Required Tests

GRE, TOEFL (score of 580 paper-based, or 85 iBT -- 22 speaking and 21 in all other categories)

Additional Requirements

1. **Minimum 3.0 cumulative undergraduate GPA**
2. **Baccalaureate degree in information technology, manufacturing engineering technology, construction management, technology and engineering education or related field**
3. **Basic sciences background, along with engineering mathematics, computers or electronics, management, architecture, and manufacturing methods**

Adult Applied Technology Programs [TEE-630]

Identifying, developing, and implementing relevant applied technology training programs.

Hours: 2.0 Credit, 2.0 Lecture, 0.0 Lab

Advanced Computer-Aided Manufacturing Programming [MFGEN-531]

BYU > Ira A. Fulton College of Engineering and Technology > Technology > Course

CAD/CAM programming techniques and requirements for manufacturing components on computer numerical-control machine tools, emphasizing CAM programming, postprocessors, and CAM software evaluation.

Hours: 3.0 Credit, 2.0 Lecture, 3.0 Lab
Prerequisites: MFG 230 or previous CNC programming experience, or instructor's approval.

Advanced Human-Computer Interaction [IT&C-555]

BYU > Ira A. Fulton College of Engineering and Technology > Technology > Course

Advanced techniques for designing, prototyping, building, and evaluating technology-mediated user experiences. Human-computer interaction research methods including experimental design. Ethics of working with human subjects. HCI theories and best practices.

Hours: 3.0 Credit, 2.0 Lecture, 2.0 Lab
Prerequisites: or instructor's consent.

Advanced Networking [IT&C-529]

BYU > Ira A. Fulton College of Engineering and Technology > Technology > Course

Analyzing, selecting, configuring, monitoring, and managing of computer network equipment. SNMP-based monitoring and control in process of fault isolation and root cause analysis.

Hours: 3.0 Credit, 2.0 Lecture, 3.0 Lab
Prerequisites: IT 344, 347; or equivalents.

Advanced Tool Design [MFGEN-574]

BYU > Ira A. Fulton College of Engineering and Technology > Technology > Course

Advanced design of net-shape products utilizing CAD and CAE methods. Plastic injection mold design and construction. Rapid prototyping and injection molding project.

Hours: 3.0 Credit, 2.0 Lecture, 3.0 Lab

Construction Company Development and Strategic Planning [CFM-650]

BYU > Ira A. Fulton College of Engineering and Technology > Technology > Course

Advanced topics in the development of construction companies, including strategic planning, negotiations, banking relations, successful companies, risk management, productivity, trending and forecasting, zoning and development, entitlements, career balance, and sub-contract and resource management.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Construction Company Financial Management [CFM-555]

BYU > Ira A. Fulton College of Engineering and Technology > Technology > Course

An in-depth review of management concepts and financial strategies needed to successfully grow and enhance profitability of a construction company. Topics include business entities, budgeting and cash management, finance and investments, accounting, financial statements, cost controls (variance and earned value analysis), real estate investing, taxation, break even analysis and capital budgeting.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Cyber-Physical Systems [IT&C-548]

BYU > Ira A. Fulton College of Engineering and Technology > Technology > Course

Integration of technologies to develop computers and mobile devices that interact with the real world, including control and sensor interfaces. Incorporate IT core topics such as networks, security, and user-space experience design. Analysis and creation of cyber-physical and Internet-of-Things (IoT) systems.

Hours: 3.0 Credit, 2.0 Lecture, 2.0 Lab
Prerequisites: Instructor's consent.

Cybersecurity and Penetration Testing [IT&C-567]

BYU > Ira A. Fulton College of Engineering and Technology > Technology > Course

Advanced computer systems security. Vulnerabilities and exploits. System and network attacks. Ethical hacking and penetration testing. Cyber security, cyber weapons, and advanced persistent threats. Legal and regulatory requirements for security and privacy.

Hours: 3.0 Credit, 2.0 Lecture, 3.0 Lab

Digital Forensics [IT&C-566]

BYU > Ira A. Fulton College of Engineering and Technology > Technology > Course

Fundamentals of digital forensics, legal issues, evidence, chain of custody, media analysis, incident response, corporate forensics, and network forensics.

Hours: 3.0 Credit, 2.0 Lecture, 3.0 Lab

Facility Design for Applied Technology Programs [TEE-635]

BYU > Ira A. Fulton College of Engineering and Technology > Technology > Course

Developing instructional facilities and educational specifications for vocational and technology laboratories.

Hours: 2.0 Credit, 2.0 Lecture, 0.0 Lab

Grant Writing and Publishing in Technology and Engineering Education [TEE-675]

BYU > Ira A. Fulton College of Engineering and Technology > Technology > Course

Grant writing and publishing as it applies to education - specifically K-12 environments and technology and engineering education.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Graduate standing.

History and Philosophy of Technology Education [TEE-610]

BYU > Ira A. Fulton College of Engineering and Technology > Technology > Course

Historical and philosophical basis of today's technology programs.

Hours: 2.0 Credit, 4.0 Lecture, 0.0 Lab

Information Technology Special Topics [IT&C-695R]

BYU > Ira A. Fulton College of Engineering and Technology > Technology > Course

Unique topics in information technology for graduate students only. Independent study with a faculty mentor.

Hours: 0.5-4.0 Credit, Arr Lecture, Arr Lab
Prerequisites: Departmental and instructor's consent.

Managing Human Resources in Construction Companies [CFM-630]

BYU > Ira A. Fulton College of Engineering and Technology > Technology > Course

Managing human resources in construction companies including hiring, firing, retention, training and employee development motivation, incentives, personality profiles and company culture.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Managing Risk in Construction [CFM-640]

BYU > Ira A. Fulton College of Engineering and Technology > Technology > Course

Managing the factors that create risk in a construction company, including contract administration, ethical practices, safety, international risks, insurances, and bonding.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Manufacturing Engineering Special Topics [MFGEN-695R]

BYU > Ira A. Fulton College of Engineering and Technology > Technology > Course

Topics arranged in consultation with instructor.

Hours: 0.5-4.0 Credit, Arr Lecture, Arr Lab
Prerequisites: Departmental and instructor's consent.

Manufacturing Information Systems [MFGEN-533]

BYU > Ira A. Fulton College of Engineering and Technology > Technology > Course

Applying and integrating software and information technologies in planning, executing, and monitoring production operations.

Hours: 3.0 Credit, 2.0 Lecture, 3.0 Lab
Prerequisites: MFGEN 381 or instructor's consent.

Manufacturing Simulation [MFGEN-580]

BYU > Ira A. Fulton College of Engineering and Technology > Technology > Course

Design and optimization of manufacturing systems using simulation. Simulation languages and modeling methodology.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Manufacturing Systems [MFGEN-532]

BYU > Ira A. Fulton College of Engineering and Technology > Technology > Course

Analyzing lean manufacturing systems. Numerous examples and case studies from industry demonstrating principles of lean production, inventory management, and lean distribution. Project with a local company to gain confidence with these principles in an industrial setting.

Hours: 3.0 Credit, 2.0 Lecture, 2.0 Lab
Prerequisites: Mfg 480 or instructor's consent.

Master's Thesis [TECH-699R]

BYU > Ira A. Fulton College of Engineering and Technology > Technology > Course

Hours: 0.5-9.0 Credit, 0.0 Lecture, 0.0 Lab
Prerequisites: Departmental consent.

Modeling and Simulation of Composites Manufacturing [MFGEN-556]

BYU > Ira A. Fulton College of Engineering and Technology > Technology > Course

Applications of spreadsheets, computer programming, mathematics, mechanics, heat transfer, fluid dynamics, and reaction kinetics to the description and prediction of various elements of manufacturing processes for polymer-based composite materials.

Hours: 3.0 Credit, 2.0 Lecture, 3.0 Lab
Prerequisites: Graduate standing or instructor's consent.

Packaging Technologies [MFGEN-575]

BYU > Ira A. Fulton College of Engineering and Technology > Technology > Course

Fundamentals of packaging technologies; materials, design and processes. Understanding of the importance and role of packaging in the manufacturing and product environment. Combined instruction and hands-on project application of the various aspects of packaging materials, design, and processes through individual and team assignments, written reports, and oral presentations.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Research and Development in Technology [TECH-601]

BYU > Ira A. Fulton College of Engineering and Technology > Technology > Course

Success strategies in graduate programs. Identifying appropriate direction of research and study. Research tools as aids in decision making: strategies, literature, logic, survey techniques, research design, statistics, computers. Preparing proposals for research papers and thesis research; organizing first three thesis chapters.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Special Topics in Construction Management [CFM-695R]

BYU > Ira A. Fulton College of Engineering and Technology > Technology > Course

Based on needs, interest, and significance, topics important to leaders and managers in the construction industry.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Special Topics in Information Technology & Cybersecurity [IT&C-515R]

BYU > Ira A. Fulton College of Engineering and Technology > Technology > Course

New topics in information technology for graduate and undergraduate students. Standard lecture and lab format.

Hours: 1.0-3.0 Credit, ARR Lecture, 0.0 Lab

System Administration [IT&C-544]

BYU > Ira A. Fulton College of Engineering and Technology > Technology > Course

Systems and network administration. User management. Server and workstation deployment and maintenance. Network Security. Infrastructure. Systems and infrastructure support. Cross-platform systems integration. Update and patch management. Mobile workforce services.

Hours: 3.0 Credit, 2.0 Lecture, 2.0 Lab

Teaching and Learning in Technology Education [TEE-625]

BYU > Ira A. Fulton College of Engineering and Technology > Technology > Course

Identifying, developing, and implementing instructional strategies unique to technology education.

Hours: 2.0 Credit, 4.0 Lecture, 0.0 Lab

Technology and Engineering Education Special Topics [TEE-695R]

BYU > Ira A. Fulton College of Engineering and Technology > Technology > Course

Topics arranged in consultation with instructor.

Hours: 0.5-3.0 Credit, Arr Lecture, Arr Lab
Prerequisites: Departmental and instructor's consent.

Technology Leadership [TECH-638]

BYU > Ira A. Fulton College of Engineering and Technology > Technology > Course

Strategic planning and policy development. Theoretical and practical leadership aspects of conceptual and implementation processes. Articulation and team building among various organizations. Ethics and conflict resolution. Developing and implementing solutions to special problems; advanced skills/concepts in traditional and emerging technology areas.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Technology Special Topics [TECH-695R]

BYU > Ira A. Fulton College of Engineering and Technology > Technology > Course

Topics arranged in consultation with instructor.

Hours: 0.5-9.0 Credit, ARR Lecture, ARR Lab
Prerequisites: Instructor's and departmental consent.

Trends and Issues in Managing Construction [CFM-600]

BYU > Ira A. Fulton College of Engineering and Technology > Technology > Course

Current political, regulatory, technological, environmental, and leadership trends and issues.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Web and Social Media Analytics [IT&C-670]

BYU > Ira A. Fulton College of Engineering and Technology > Technology > Course

Techniques for managing, exploring, visualizing, and analyzing web and social media data including social network analysis, search engine optimization, ethical treatment of social data, and web analytics research methods.

Hours: 3.0 Credit, 2.0 Lecture, 2.0 Lab
Prerequisites: Admission to the program or instructor's consent.

Workshop in Applied Technology Education [TEE-593R]

BYU > Ira A. Fulton College of Engineering and Technology > Technology > Course

Teaching and learning technological literacy skills. Reviewing and participating in current technological advances, with a focus on teaching practice and methods.

Hours: 0.5-2.0 Credit, ARR Lecture, ARR Lab

Bingham, Evan Dale

BYU > Ira A. Fulton College of Engineering and Technology > Technology > Faculty

Assistant Professor
Technology
PhD

Christensen, Kip

Professor
Technology
PhD, Colorado State University, 1991
Research Interest: Teacher Education

Christofferson, Jay P

Professor
Technology
PhD, Colorado State University, 1996
Research Interest: Computerized Systems in Construction Management

Domike, Reuben Dumont

Associate Professor
Technology

Farnsworth, Clifton B

Associate Professor
Technology
PhD, University of Utah, 2008

Fry, Richard E

Associate Professor
Technology
MFA, University of Illinois, 1994
Research Interest: Product Industrial Design

George, Andrew Robert

Associate Professor
Technology
PhD, University of Stuttgart, 2011
Research Interest: Plastics and Composites Materials; Modeling, Simulation, and Optimization

Giboney, Justin S

Assistant Professor
Technology
PhD, University of Arizona, 2014

Hansen, Derek Lloyd

Associate Professor
Technology
PhD, University of Michigan, 2007
Research Interest: Social Media; Social Network Analysis; Human-Computer Interaction

Hovanski, Yuri

Associate Professor
Technology

Howell, Bryan Franklin

Associate Professor
Technology
MFA, University of Texas, Austin, 2003
Research Interest: Industrial Design

Hughes, Amanda Lee

Assistant Professor
Technology

Hutchings, D Mark

Associate Professor
Technology
PhD, Texas A&M University, 2002
Research Interest: Construction Company Management; Legal Aspects of Construction; Real Estate, Investment, and Development

Lunt, Barry M

Professor
Technology
PhD, Utah State University, 1993
Research Interest: Long-Term Digital Data Storage

Miles, Michael Paul

Professor
Technology
PhD, Ecole des Mines de Paris, 1995
Research Interest: Lean Manufacturing; Materials Science; Finite Element Analysis

Rowe, Dale Christopher

Associate Professor
Technology
PhD, University of Kent, 2010
Research Interest: Identity, Biometrics, and Security

Shumway, Steven L

Professor
Technology
PhD, Utah State University, 1999
Research Interest: Student Learning and Motivation Theory

Skaggs, Paul T

Associate Professor
Technology
MFA, Rochester Institute of Technology, 2002
Research Interest: Interior Design

Smith, James Packer

Assistant Professor
Technology
PhD, Texas A&M University, 2013

Teng, Chia Chi

Associate Professor
Technology
PhD, University of Washington, 2007
Research Interest: Computer Vision; Biomatical Informatics; Biomatical Image Processing

Weaver, Jason Michael

Assistant Professor
Technology
PhD

Weidman, Justin Earl

Associate Professor
Technology
PhD, Virginia Tech, 2012
Research Interest: Construction Means & Methods and Safety Education

Wright, Geoffrey Albert

Associate Professor
Technology
PhD, Brigham Young University, 2008
Research Interest: Technology Engineering Education

Theatre and Media Arts

Address

Theatre and Media Arts
D-581 HFAC
801-422-3750
lindsi_neilson@Byu.edu

Programs

Media and Performance Studies [485975]

This program is a scholarly two-year degree. Students should be in residence for the duration of the program. The coursework consists of a core of history/theory classes supplemented by electives chosen by the student in conjunction with her/his advisor. The program wraps up with comprehensive exams and the writing of a solid scholarly thesis. There are two possible emphases: Theatre History and Critical Studies, or Media Arts Education.

The Theatre History and Critical Studies emphasis is meant to springboard students into either teaching at the community college level or further graduate studies at a PhD level. It includes intensive reading of dramatic literature and contemporary scholarship, critical study of both linguistic and social theories, writing for presentation and publication, and opportunities for dramaturgy training. The best writing samples for the application are papers dealing with critical analysis of theatre. They could be advanced undergraduate papers or published articles.

While we encourage our Master's students to support their academic endeavors with practical theatre (or more limited media arts) experience, *the program is centered on scholarship, not on production.*

The Media Arts Education emphasis is primarily designed for students who are already full-time secondary education teachers or individuals who would like to pursue a PhD in media education. Students who are interested in educational outreach and media literacy advocacy in various public settings should apply. Most classes are offered in the evening and during the spring and summer. Writing samples for the application should be advanced undergraduate research or analytical essays.

Chair: Wade Hollingshaus
Graduate Coordinator: Benjamin Thevenin

Financial Assistance

The following financial support is available through the Department of Theatre and Media Arts:

Assistantships. Graduate students may work in many areas, including performance, production, research, and teaching. Applicants must have appropriate background and experience to be considered. Assistantships range up to half-time; pay is based on applicant's experience, year in school, and the type of assistantship.

Supplemental Tuition Awards. Supplemental tuition awards are offered by the department during all semesters and terms. The size of these awards is determined by the applicants' qualifications and the availability of funds.

Media and Performance Studies (MA) [485975]

Requirements for Degree.

Credit hours (32): 14 hours required courses, minimum 12 elective hours, and minimum 6 thesis hours (TMA 699R).
Required courses: TMA 590R, 620, 651, 652, 668R.
Elective courses: 12 hours of electives, chosen in consultation with the student's advisor and subject to approval of the department's graduate council. One or more of these may be additional TMA graduate seminars (TMA 590R).
Thesis: The thesis must make a genuine contribution to body of knowledge and meet highest academic standards. Three kinds of thesis research will be accepted: (A) scholarly analysis of media and/or performance studies history, theory, or criticism; (B) research and strong creative achievement in media and/or performance studies; (C) qualitative research including action research.
Examinations: (A) comprehensive written examination; (B) comprehensive oral examination; (C) oral defense of thesis.

Required Tests

TOEFL or IELTS (international applicants only)

Additional Requirements

1. Acceptable undergraduate background in theatre arts or media arts
2. For Media applicants: two analytical/critical writing samples of scholarly writing
3. Three letters of recommendation

Academic Internship [TMA-599R]

Off-campus experience or internship in theatre or media arts.

Hours: 1.0-9.0 Credit, ARR Lecture, ARR Lab
Prerequisites: Theatre students: TMA 115; by application only. Media students: TMA 112 and 114 and 185/105; by application only. TMA graduate student: by application only.

Academic Internship: Media [TMA-599R]

Off-campus experience or internship in media arts.

Hours: 1.0-9.0 Credit, ARR Lecture, ARR Lab
Prerequisites: by application only.

Advanced Directing [TMA-671R]

Theories and techniques of directing for the stage through directing projects for public presentation.

Hours: 3.0 Credit, 2.0 Lecture, 2.0 Lab
Prerequisites: Instructor's consent.

Directing Workshop [TMA-536R]

Advanced experience in directing.

Hours: 0.5-3.0 Credit, ARR Lecture, ARR Lab
Prerequisites: application required.

Dramaturgy 1 [TMA-610]

BYU > College of Fine Arts and Communications > Theatre and Media Arts > Course

Graduate-level research and application of hands-on theatrical skills in four critical studies areas: literary management, production dramaturgy, new play development, educational outreach.

Hours: 3.0 Credit, 4.0 Lecture, 0.0 Lab
Prerequisites: TMA graduate student status or instructor's consent.

Dramaturgy 2 [TMA-611]

BYU > College of Fine Arts and Communications > Theatre and Media Arts > Course

Develop further research and hands-on theatrical skills in four critical studies areas: literary management, production dramaturgy, new play development, educational outreach.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab

Introduction to Graduate Studies in Theatre and Media Arts [TMA-620]

BYU > College of Fine Arts and Communications > Theatre and Media Arts > Course

Introductory seminar required of all graduate students during first semester or term that class is offered.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: TMA graduate major status.

Introduction to Graduate Studies: Media [TMA-620]

BYU > College of Fine Arts and Communications > Theatre and Media Arts > Course

Introductory seminar required of all graduate students during first semester or term that class is offered.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: TMA graduate major status.

Introduction to Graduate Studies: Theatre [TMA-620]

BYU > College of Fine Arts and Communications > Theatre and Media Arts > Course

Introductory seminar required of all graduate students during first semester or term that class is offered.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: TMA graduate major status.

Master Seminar [TMA-590R]

BYU > College of Fine Arts and Communications > Theatre and Media Arts > Course

Special topics seminar on topics relevant to the fields of media and/or performance studies.

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: Instructor's consent.

Master's Thesis [TMA-699R]

BYU > College of Fine Arts and Communications > Theatre and Media Arts > Course

Hours: 1.0-9.0 Credit, ARR Lecture, ARR Lab
Prerequisites: TMA graduate major status. Instructor's consent.

Media and Performance History and Theory 1 [TMA-651]

BYU > College of Fine Arts and Communications > Theatre and Media Arts > Course

Media and Performance history sites - beginnings through 1900 - emphasizing existing archives, representative texts and cultural documents, and contemporary criticism.

Hours: 3.0 Credit, 0.0 Lecture, 0.0 Lab
Prerequisites: TMA Graduate Major Status.

Media and Performance History and Theory 2 [TMA-652]

BYU > College of Fine Arts and Communications > Theatre and Media Arts > Course

Media and Performance history sites - 1900-today - emphasizing existing archives, representative texts and cultural documents, and contemporary criticism.

Hours: 3.0 Credit, 0.0 Lecture, 0.0 Lab
Prerequisites: TMA Graduate Major Status.

Media Production Experience for Secondary Teachers [TMA-680]

BYU > College of Fine Arts and Communications > Theatre and Media Arts > Course

Basics of film and video production as they apply to the secondary classroom/student.

Hours: 3.0 Credit, 3.0 Lecture, 3.0 Lab
Prerequisites: TMA graduate major status.

Pedagogical Theory and Methods of Media Instruction [TMA-687]

BYU > College of Fine Arts and Communications > Theatre and Media Arts > Course

Educational methods and techniques for addressing media in the secondary classroom; educational models and theories related to cultural and historical representations of media technologies.

Hours: 3.0 Credit, 3.0 Lecture, 3.0 Lab
Prerequisites: TMA graduate major status.

Playwriting 4 [TMA-551R]

BYU > College of Fine Arts and Communications > Theatre and Media Arts > Course

Workshop course designed to assist more advanced students in furthering their playwriting skills by writing or rewriting a play.

Hours: 3.0 Credit, 4.0 Lecture, 0.0 Lab
Prerequisites: TMA 451 or instructor's consent.

Production Dramaturgy [TMA-612R]

BYU > College of Fine Arts and Communications > Theatre and Media Arts > Course

Experience as lead dramaturg for main-stage productions; building casebooks and overseeing audience education efforts. Rehearsal and production meeting attendance required.

Hours: 1.0-3.0 Credit, 2.0 Lecture, Arr Lab
Prerequisites: and instructor's consent.

Projects in Theatre or Media Arts [TMA-674R]

BYU > College of Fine Arts and Communications > Theatre and Media Arts > Course

Supervised applied theory in playwriting/screenwriting, directing, acting, design, criticism, stagecraft, or curriculum design.

Hours: 1.0-4.0 Credit, Arr. Lecture, Arr. Lab
Prerequisites: TMA graduate major status. Instructor's consent.

Screens Theory [TMA-691]

BYU > College of Fine Arts and Communications > Theatre and Media Arts > Course

Identifying and analyzing similarities and discontinuities in moving images, from classical film through digital media.

Hours: 3.0 Credit, 3.0 Lecture, 3.0 Lab
Prerequisites: TMA graduate major status.

Special Projects 3 [TMA-515R]

BYU > College of Fine Arts and Communications > Theatre and Media Arts > Course

Advanced special projects in theatre or media arts.

Hours: 1.0-6.0 Credit, Arr Lecture, Arr Lab
Prerequisites: Theatre and media arts students: by application.

Special Projects 3: Media [TMA-515R]

BYU > College of Fine Arts and Communications > Theatre and Media Arts > Course

Advanced special projects in media arts.

Hours: 1.0-6.0 Credit, Arr Lecture, Arr Lab
Prerequisites: Theatre and media arts students: by application.

Special Projects 3: Theatre [TMA-515R]

BYU > College of Fine Arts and Communications > Theatre and Media Arts > Course

Advanced special projects in theatre.

Hours: 1.0-6.0 Credit, Arr Lecture, Arr Lab
Prerequisites: Theatre and media arts students: by application.

Special Studies in Theatre or Media Arts [TMA-668R]

BYU > College of Fine Arts and Communications > Theatre and Media Arts > Course

Supervised research in selected historical, theoretical, or critical problems.

Hours: 1.0-3.0 Credit, 0.0 Lecture, 0.0 Lab
Prerequisites: Instructor's consent.

Theatre and Media Arts Instruction [TMA-616]

BYU > College of Fine Arts and Communications > Theatre and Media Arts > Course

Developing teaching methods and techniques for instruction in theatre and media arts classroom.

Hours: 1.0 Credit, 1.0 Lecture, 0.0 Lab
Prerequisites: TMA graduate student status or instructor's consent.

Theatre History and Theory 3: 19th - 21st Centuries [TMA-602]

Theatre history sites--nineteenth through twenty-first centuries--emphasizing existing archives, representative texts and cultural documents, and contemporary criticism

Hours: 3.0 Credit, 3.0 Lecture, 0.0 Lab
Prerequisites: TMA graduate student status or instructor's consent.

Barber, Brad Andrew Krueger

Associate Teaching Professor
Theatre and Media Arts
MFA, University of Southern California, 2005
Research Interest: Media Arts Production

Duncan, Dean W

Associate Professor
Theatre and Media Arts
PhD, University of Glasgow, Scotland, 1999
Research Interest: Film History; Theory; Criticism

Hollingshaus, Wade James

Associate Professor
Theatre and Media Arts
PhD, University of Minnesota, 2008
Research Interest: Theatre History/Theory/Criticism; Dramaturgy; Performance Studies

Jensen, Amy Petersen

Professor
Theatre and Media Arts
PhD, University of Illinois at Urbana Champaign, 2003
Research Interest: Media Education; Secondary Education

Jones, Megan Sanborn

Professor
Theatre and Media Arts
PhD, University of Minnesota, 2003
Research Interest: Theatre History/Theory/Criticism

Larsen, Darl E

Professor
Theatre and Media Arts
PhD, Northern Illinois University, 2000
Research Interest: Film History; Genres; Asian Cinemas; History of Animation; Screenwriting

Nelson, George Darrell

Professor
Theatre and Media Arts
MFA, University of Washington, 1979
Research Interest: Child Drama; Secondary Education

Parkin, Jeffrey L

Teaching Professor
Theatre and Media Arts
MFA, University of Southern California, 1991
Research Interest: Media Arts Production

Scanlon, Rory Rahn

Professor
Theatre and Media Arts
MFA, University of Illinois, 1984
Research Interest: Set and Costume Design; Costume History; Lighting Design

Thevenin, Benjamin J

Assistant Professor
Theatre and Media Arts
PhD, University of Colorado, 2012
Research Interest: Media Arts Critical Studies